Inventor search history

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### 144 SEA FILE-HCAPLUS ABB-ON PLU-ON ("STRITTMATTER S M"/AU OR "STRITTMATTER STEPHEN M"/AU OR "STRITTMATTER STEPHEN MRK"/AU OR "STRITTMATTER STEPHEN MAKK"/AU OR "STRITTMATTER STEPHEN S"/AU) 228 SEA FILE-HCAPLUS ABB-ON PLU-ON "LEE DANIEL"?/AU OR "LEE 4680 SEA FILE-HCAPLUS ABB-ON PLU-ON "LI WEIWEI"/AU OR "LE DANIEL"/AU OR "LI WEIWEI"/AU OR "LI WEIW"/AU OR "LIO ALSHEIMER? OR AMYLOID? OR PLAQUE? OR NOGO? OR NOGOR? OR NOGOL? OR NGCOR!? OR NGR? OR NGC? OR NGR!?) SEA FILE-HCAPLUS ABB=ON PLU=ON L104 OR L106, OR L109 QUE ABB=ON PLU=ON AY<2005 OR PY<2005 OR PRY<2005 OR RE PLU-ON L104 OR L106, OR L109 (FILE 'HCAPLUS' ENTERED AT 10:48:08 ON 21 NOV 2007) 43 S L104 OR L106 OR L109 £ -> d que L110 L101 1102 L104 L105 L106 L107 L108 1110 L103 199

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(FILE 'MEDLINE, BIOSIS, EMBASE, DRUGU' ENTERED AT 11:40:06 ON 21 NOV 2007) 144 SEA FILE-HCAPLUS ABB-ON PLU-ON ("STRITTMATTER S M"/AU OR "STRITTMATTER STEPHEN M"/AU OR "STRITTMATTER STEPHEN MARK"/AU OR "STRITTMATTER STEPHEN S"/AU) 228 SEA FILE-HCAPLUS ABB-ON PLU-ON "LEE DANIEL"?/AU OR "LEE
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4680 SEA FILE-HCAPLUS ABB-ON PLU-ON "LI WEIWEI"/AU OR "LI WEI W"/AU OR "LI WEI W"/AU OR "LI WEI W"/AU OR "LI WEI W"/AU
5 SEA FILE-HCAPLUS ABB-ON PLU-ON LIO1 AND LIO2 AND LIO3)
14 SEA FILE-HCAPLUS ABB-ON PLU-ON (LI01 OR LIO2 OR LIO3)
14 SEA FILE-HCAPLUS ABB-ON PLU-ON LIO5 AND BIOGEN?/CO,CS,PA,SO QUE ABB=ON PLU=ON AY<2005 OR PY<2005 OR PRY<2005 OR RE 24 S L147 OR L149 SAVE TEMP L150 HA669MLIN/A 5 SEA FILE-HCAPLUS ABB-ON PI 503 SEA FILE-HCAPLUS ABB-ON PI 14 SEA FILE-HCAPLUS ABB-ON PI 6 SEA L104 27 SEA L106 SEA L148 AND L99 SEA L147 OR L149 VIEW/DT 20 24 24 -> d que L150 L150 1,101 L102 L104 L105 L106 L103 L147

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ANSWERS 444-49' FROM FILE BIOSIS ANSWER '50' FROM FILE DRUGU

# Inventor search results

## -> d L151 1-50 ibib ab

Park, James H.; Gimbel, David A.; GrandPre, Tadzia; M. Department of Neurology, Yale University School of Medicine, New Haven, CT, 06510, USA Journal of Neuroscience (2006), 26(5), 1386-1395 Alzheimer precursor protein interaction with the COPYRIGHT 2007 ACS on STN DUPLICATE 1 nogo-66 receptor reduces amyloid-β plaque Lee, Daniel H. S.; Strittmatter, Stephen Lee, Jung-Kil; Kim, Ji-Eun; Li, Weiwei; 2006:152149 HCAPLUS Full-text CODEN: JNRSDS; ISSN: 0270-6474 Society for Neuroscience 144:290750 English Journal HCAPLUS LISI ANSWER 1 OF 50 ACCESSION NUMBER: CORPORATE SOURCE: DOCUMENT NUMBER: DOCUMENT TYPE: AUTHOR (S): PUBLISHER: LANGUAGE: SOURCE: TITLE:

model. Changes in NgR level produce parallel changes in secreted APP $\alpha$  and A $\beta$ , implicating NgR as a blocker of secretase processing of APP. The NgR provides a novel site for modifying the course of AD and highlights the role of axonal axonal sprouting response is known to occur near Aß deposits. A Nogo to Nogo-66 receptor (NgR) pathway contributes to determining the ability of adult CNS axons to extend after traumatic injuries. Here, we consider the potential role of NgR mechanisms in AD. Both Nogo and NgR are mislocalized in AD brain samples. APP phys. assocs. with the NgR. Overexpression of NgR decrease A $\beta$  production in neuroblastoma culture, and targeted disruption of NgR expression hypotheses for Alzheimer's disease (AD) are centered on the role of the amyloid plaque  $A\beta$  peptide and the mechanism of its derivation from the amyloid precursor protein (APP). As part of the disease process, an aberrant increases transgenic mouse brain  $A\beta$  levels,  $A\beta$  plaque deposition, and dystrophic neurites. Infusion of a soluble NgR fragment reduces  $A\beta$  levels, amyloid plague deposits, and dystrophic neurites in a mouse transgenic AD dysfunction in the disease Pathophysiol.

THERE ARE 36 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

REFERENCE COUNT:

145:267732 The Nogo66 receptor pathway and CNS axon regeneration: LUS COPYRIGHT 2007 ACS on STN DUPLICATE 2 2006:722181 HCAPLUS Full-text new hopes for treating CNS injuries and LISI ANSWER 2 OF 50 HCAPLUS ACCESSION NUMBER: DOCUMENT NUMBER:

Lee, Daniel HS; Seamans, Katherine W. Neurobiology, Biogen Idec, Inc., Cambridge, neurodegeneration CORPORATE SOURCE: AUTHOR (S):

MA, 02142, USA Expert Opinion on Therapeutic Patents (2006), 16(8), 1041-1050 CODEN: EOTPEG; ISSN: 1354-3776 Informa Healthcare PUBLISHER:

Journal; General Review

DOCUMENT TYPE:

AB

SOURCE:

A review. The neuronal leucine-rich repeat Nogo66 receptor (NgR) interacts with the myelin proteins Nogo66, myelin associated glycoprotein and oligodendrocyte myelin glycoprotein to inhibit axon growth. Modulation of English LANGUAGE:

these cell surface NgR-dependent interactions or the inhibitory intracellular signaling pathways may promote axon growth in the CNS after injury and present an attractive axon regeneration platform for treating CNS injuries or even neurodegenerative disorders. Multiple NgR antagonism approaches, including soluble NgR proteins, anti-NgR antibodies, a Nogo-derived antagonist peptide and NgR signal transduction modulators, have demonstrated striking efficacies in promoting functional recoveries in animal models of spinal cord injury, stroke and multiple sclerosis. This review summarizes the neurobiol. of the NgR pathway and the various drug discovery strategies that are specifically based on modulation of the myelin-NgR interaction.

102 THERE ARE 102 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE

REFERENCE COUNT:

A Neutralizing Anti-Nogo66 Receptor Monoclonal COPYRIGHT 2007 ACS on STN DUPLICATE 3 2004:828320 HCAPLUS Full-text 141:311429 LISI ANSWER 3 OF 50 HCAPLUS ACCESSION NUMBER: 2004 DOCUMENT NUMBER:

Central Nervous System Myelin
Li, Weiwei; Walus, Lee; Rabacchi, Sylvia A.;
Jirik, Adrienna; Chang, Ernie; Schauer, Jessica;
Zheng, Betty H.; Benedetti, Nancy J.; Liu, Betty P.;
Choi, Eugene; Worley, Dane; Silvian, Laura; Mo,
Wenjun; Wullen, Colleen; Yang, Weixing;
Strittmatter, Stephen M.; Sah, Dinah W. Y.;
Pepinsky, Blake; Lee, Daniel H. S. Antibody Reverses Inhibition of Neurite Outgrowth by

AUTHOR (S):

Biogen İdec, Inc., Cambridge, MA, 02142, USA J. Biol. Chem. (2004), 279 (42), 43780-43788 CODBN: JBCHA3, ISSN: 0021-2258 American Society for Biochemistry and Molecular CORPORATE SOURCE:

Biology PUBLISHER:

Journal

DOCUMENT TYPE:

The Nogo66 receptor (NgR1) is a neuronal, leucine-rich repeat (LRR) protein that binds three central nervous system (CNS) myelin proteins, Nogo, myelin-associated glycoprotein, and oligodendrocyte myelin glycoprotein, and mediates English LANGUAGE:

recognizing this epitope, such as 7E11, can neutralize CNS myelin-dependent inhibition of neurite outgrowth. Thus, specific anti-NgR1 antibodies may represent a useful therapeutic approach for promoting CNS repair after injury. SNCE COUNT: their inhibitory effects on neurite growth. Although the LRR domains on NgR1 are necessary for binding to the myelin proteins, the exact epitope(s) involved in ligand binding is unclear. Here we report the generation and detailed characterization of an anti-NgR1 monoclonal antibody, 7E11. The 7E1 monoclonal antibody blocks Nogo, myelin-associated glycoprotein, and oligodendrocyte myelin glycoprotein binding to NgRl with IC50 values of 120, 14, and 4.5 mW, resp., and effectively promotes neurite outgrowth of P3 rat doreal root ganglia neurons cultured on a CNS myelin substrate. Further, we have defined the mol. epitope of 7E11 to be DNAQLR located in the third LRR domain of rat NgRl. Our data demonstrate that anti-NgRl antibodies

HCAPLUS COPYRIGHT 2007 ACS on STN DUPLICATE 4 2004:1056241 HCAPLUS Full-text 142:17932 L151 ANSWER 4 OF 50 ACCESSION NUMBER: DOCUMENT NUMBER: TITLE:

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

REFERENCE COUNT:

Blockade of nogo-66, myelin-associated glycoprotein, and oligodendrocyte myelin glycoprotein by soluble nogo-66 receptor promotes axonal sprouting and recovery after spinal injury

Li, Shuxin; Liu, Betty P.; Budel, Stephane; Li, Mingwel, Ji, Benxiu, Walue, Lee; Li, Welwel, Jirkk, Adrienna; Rabacchi, Sylvia; Choi, Eugene; Morley, Dane; Sah, Dinah W. Y.; Pepinsky, Blake; Lee, Daniel, Relton, Jane, Strittmatter, Stephen M. AUTHOR (S):

Departments of Neurology and Neurobiology CORPORATE SOURCE:

Yale University School of Medicine, New Haven, CT, 06510, USA Journal of Neuroscience (2004), 24(46),

10511-10520

SOURCE:

CODEN: JNRSDS; ISSN: 0270-6474

Society for Neuroscience Journa] PUBLISHER: DOCUMENT TYPE:

injury. Three myelin proteins, Nogo, MAG (myelin-associated glycoprotein), and OMGP (oligodendrocyte myelin glycoprotein), bind to the Nogo-66 receptor (NgR) and inhibit axonal growth in vitro. Transgenic or viral blockade of NgR function allows axonal sprouting in vitro. Here, we administered the soluble function-blocking NgR ectodomain (aa 27-310, NgR (310)ecto) to spinal-injured rate. Purified NgR(310)ecto-Fc protein was delivered intrathecally after mid-The growth of injured axons in the adult mammalian CNS is limited after English LANGUAGE:

thoracic dorsal over-hemisection. Axonal sprouting of corticospinal and raphe spinal fibers in NgR(310)ecto-Fc-treated animals correlates with improved spinal cord elec. conduction and improved locomotion. The ability of soluble NgR(310)ecto to promote axon growth and locomotor recovery demonstrates a therapeutic potential for NgR antagonism in traumatic spinal cord injury.

SENCE COUNT:

41 THERE ARE 41 CITED REPERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE PORMAT

PLUS COPYRIGHT 2007 ACS on STN DUPLICATE 5 2003:647445 HCAPLUS Full-text HCAPLUS LISI ANSWER S OF SO ACCESSION NUMBER:

a7 Nicotinic Acetylcholine Receptors Mediate 139:212250 DOCUMENT NUMBER:

B-Amyloid Peptide-induced Tau Protein

Wang, Hoau-Yan; Li, Weiwei; Benedetti, Nancy Phosphorylation

AUTHOR (S):

J.; Lee, Daniel H. S. Biogen Inc., Cambridge, MA, 02142, USA Journal of Biological Chemistry (2003), 278(34), CORPORATE SOURCE:

31547-31553 SOURCE:

CODEN: JBCHA3; ISSN: 0021-9258 American Society for Biochemistry and Molecular Biology PUBLISHER:

English Journal DOCUMENT TYPE: LANGUAGE:

The Alzheimer's disease pathogenic peptide,  $\beta$ -amyloid42 (A $\beta$ 42), induces tau protein phosphorylation. Because hyperphosphorylated tau is a consistent component of neurofibrillary tangles, a pathol. hallmark of Alzheimer's disease, we investigated the signaling mols. involved in  $A\beta42$ -induced tau

phosphorylation. Western analyses showed that the mitogen-activated kinase cascade proteins, ERKs and c-Jun N-terminal kinase (JNK-1), were concomitantly phosphorylation. We show that  $A\beta 42$  elicited rapid and reversible tau protein phosphorylation on three proline-directed sites (Ser-202, Thr-181, and Thrpretreatment with antisense- $\alpha$ 7nAChR oligonucleotides (in cells) or  $\alpha$ 7nAChR including serum-deprived human SK-N-MC neuroblastoma cells and hippocampal 231) in systems enriched in a7 nicotinic acetylcholine receptors (a7nAChR) synaptosomes. Although a?nAChR agonists induced similar phosphorylation, antagonists (in cells and synaptosomes) attenuated AB-induced tau

activated by A $\beta$ 42, and their resp. kinase inhibitors suppressed A $\beta$ -induced tau phosphorylation. More importantly, recombinant-activated ERKs and JNK-1 could differentially phosphorylate tau protein in vitro. Thus, the lpha 7n A C h R may

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT mediate  $A\beta$ -induced tau protein phosphorylation via ERKs and JNK-1. SNCE COUNT: 35 THERE ARE 35 CITED REFERENCES AVAILABLE FOR ' REFERENCE COUNT:

COPYRIGHT 2007 ACS on STN DUPLICATE 6 L151 ANSWER 6 OF 50 HCAPLUS ACCESSION NUMBER:

Targeting the NOGO receptor to threat central nervous 2003:922380 HCAPLUS Full-text 140:156523 DOCUMENT NUMBER:

system injuries

Lee, Daniel H. S.; Strittmatter,

AUTHOR (S):

SOURCE:

Biogen Inc., Cambridge, MA, 02142, USA Nature Reviews Drug Discovery (2003), 2(11), 872-878 Stephen M.; Sah, Dinah W. Y. CORPORATE SOURCE:

CODEN: NRDDAG; ISSN: 1474-1776 Nature Publishing Group

Journal, General Review English DOCUMENT TYPE: PUBLISHER: LANGUAGE:

A review. Axonal damage is a key pathol. in many injuries of the central nervous system (CNS), such as spinal cord injury, traumatic brain injury and stroke, as well as in multiple sclerosis. An attractive drug discovery strategy to treat such conditions is to search for agents that promote CNS axonal regeneration. Historically, limited knowledge concerning the basis of poor CNS regeneration has precluded a rational drug discovery approach for promoting axonal regeneration. The recent identification of the Nogo receptor, which interacts with inhibitory myelin protein, established the crucial role of this mol. pathway in mediating the inhibitory effects of CNS myelin. This provides an unprecedented opportunity to manipulate adult CNS axonal regeneration. The development of therapeutics targeting the Nogo receptor has the potential to promote functional recovery and reverse the

THERE ARE 65 CITED REFERENCES AVAILABLE FOR THIS devastating consequences of CNS injuries. 65 REFERENCE COUNT:

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

COPYRIGHT 2007 ACS on STN DUPLICATE 7 2003:288472 HCAPLUS Full-text L151 ANSWER 7 OF 50 HCAPLUS ACCESSION NUMBER:

139:5020 DOCUMENT NUMBER:

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Differential physiologic responses of nicotinic acetylcholine receptors to Lee, Daniel H. S.; Wang, Hoau-Yan B-amyloid1-40 and B-amyloid1-42 AUTHOR (S):

Biogen Inc., Cambridge, MA, 02142, USA Journal of Neuroblotogy (2003), 55(1), 25-30 CODEN: JNEUEZ, ISSN: 0022-3034 John Willey & Sons, Inc. CORPORATE SOURCE: SOURCE:

PUBLISHER:

Journal English DOCUMENT TYPE: LANGUAGE:

channel,  $\alpha$ 7 nicotinic acetylcholine receptors ( $\alpha$ 7nAChR), would result in distinct physiol. responses as measured by acetylcholine release and Ca influx expts. While A $\beta$ 1-42 effectively attenuated these  $\alpha$ 7nAChR-dependent physiol. The  $\beta$ -amyloid peptides  $(A\beta)$ ,  $A\beta 1-40$  and  $A\beta 1-42$ , were implicated in Alzheimer's pathol. peptide in AD, both A $\beta$ 1-40 and A $\beta$ 1-42 were used in a variety of exptl. oligomeric forms of the 2 A $\beta$  peptides, when interact with the neuronal cation disease (AD) pathol. Although  $A\beta 1-42$  is generally considered to be the models without discrimination. Here the authors show that monomeric or to an extent that was apparently irreversible, A $\beta$ 1-40 showed a lower AB

inhibitory activity that could be restored upon washings with physiol. buffers or treatment with a7nAChR antagonists. These data suggest a clear pharmacol. distinction between AB1-40 and AB1-42.

THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT REFERENCE COUNT:

147.315096
Use of antagonists of the myelin-associated inhibitory factor receptor complex and neurotrophic factors for treatment of neurological diseases and disorders Lee, Daniel H. S.; Rossomando, Anthony; Weinreb, Paul H. APPLICATION NO. 2007:966580 HCAPLUS Full-text L151 ANSWER 8 OF 50 HCAPLUS COPYRIGHT 2007 ACS on STN Biogen Idec Ma Inc., USA PCT Int. Appl., 187pp. CODEN: PIXXD2 English Patent FAMILY ACC. NUM. COUNT: PATENT ASSIGNEE (S) : PATENT INFORMATION: ACCESSION NUMBER: DOCUMENT NUMBER: PATENT NO. DOCUMENT TYPE: INVENTOR (S): LANGUAGE: SOURCE:

Methods of promoting the survival, regeneration, and outgrowth of neurons in the treatment of neurol, disease are described. The methods involve use of antagonists of the MAIF (myelin-associated inhibitory factor) receptor complex 20070227 CA, CH, GB, GD, I, KM, KN, MG, MK, PT, RO, TR, TT, HU, IE, BF, BJ, BW, GH, AZ, BY, P 20060227 P 20060718 78, 78, A H H SK, 13K, 28 BY, ES, KE, BR, BW, EE, EG, JP, LY, TJ, 抚, SI, SN, ZM, US 2006-776657P US 2006-831459P WO 2007-US5078 FI, SE, NE, IS, LV, OM, SY, IN, LU, NZ, SV, ZW ES, HRO, TZ, BB, DZ, SZ, ME ID, NI, SL, SL, SE, SE, 0070830 HR, NA, CZ, CZ, TA, AT, G & & GT, SD, SD, CH, CH, PRIORITY APPLN. INFO.: WO 2007098283 RW.

lee, Daniel H. S.; Wen, Dingyi; Pepinsky, Blake R.; Relton, Jane K.; Wang, Xinzhong; Lugovskoy, Alexey; Meier, Werner; Garber, Ellen A.; Silvian, Laura; Weinreb, Paul H. promoting neurite outgrowth in treatment of nerve Antagonists of the Nogo-1 receptor and their use HCAPLUS COPYRIGHT 2007 ACS on STN 2007:874243 HCAPLUS Full-text PCT Int. Appl., 190pp., which Biogen Idec Ma Inc., USA CODEN: PIXXD2 147:269240 injury LISI ANSWER 9 OF 50 ACCESSION NUMBER: PATENT ASSIGNEE(S): SOURCE: DOCUMENT NUMBER: INVENTOR (S):

in combination with neurotrophic factors. The receptor complex includes the Nogo receptor, the Spi5/LINGO protein, and the TAJ receptor (TNFRSF19.). These methods may be used to treat CNS disorders, stroke, or spinal injury.

9

English 1

COUNT:

FAMILY ACC. NUM. CC PATENT INFORMATION:

DOCUMENT TYPE:

LANGUAGE:

Peptides derived from the Nogo-1 receptor and antibodies to the receptor that can act as antagonists are described. These peptides and antibodies, and fusion proteins containing them. He useful in promoting neurite outgrowth. The use of a Nogo receptor fusion protein with an Ig Pc domain to ameliorate Nogo receptor (NgR) disulfide structure, NgR signaling inhibiting NgR fragments, mutants, fusion products and E, BC, BC, BY, BY, £ 8 \$ \$ 5 £ 20070126 P 20060127 P 20060719 20060825 genetic constructs, and uses in mediating axonal PT, TR, Ю, BF, Ã, BW, 4 F F Wen, Dingyi; Lee, Daniel H. S.; Pepinsky, R. 8, E, 5, S В2, TH, ES, KG, MD, TN, SK, TD, ĞВ, BW, 50, 17, 13, SI, SN, ZM, BW, EG, KE, TM, US 2006-762487P US 2006-831659P WO 2006-US33369 APPLICATION NO. APPLICATION NO. WO 2007-US2199 LV, OM, SY, FI, SE, NE, UG, L151 ANSWER 10 OF 50 HCAPLUS COPYRIGHT 2007 ACS on STN ACCESSION NUMBER: 2007:220128 HCAPLUS Full-text 8 BG, LU, NZ, SW, ZW, RO, HO, Biogen Idec Ma Inc., USA PCT Int. Appl., 89pp. CODEN: PIXXD2 IL, IL, SM, SM, SE, SZ, SZ, BB, DZ, LU, LU, SX, SX, SY, MZ, MI, spinal cord injury in rats is demonstrated. AZ, ID, NI, SI, NE, GO, 20070809 20070301 20070531 AU, DE, LLK, SG, CCZ, MC, TM C, AU, 146:302160 AT, AT, CZ, KK, KK, CYC, GA, Ğ,Ä LC, SE, SE, CY, CY, LV, TJ, Patent Blake growth KIND A2 A3 A4, CCU, LC, LC, MZ, CCH, CCH, 8 € , tè ¥, FAMILY ACC. NUM. COUNT: PRIORITY APPLN. INFO.: AE, AG,
CN, CO,
GE, GH,
KR, KZ,
MW, MX,
UN, UG,
IS, IT,
CF, CG, AG, CO, CO, KR, KR, WW, UA, UA, CG, KE, PATENT ASSIGNEE(S): PATENT INFORMATION: WO 2007025219 WO 2007089601 2007025219 AE, DOCUMENT NUMBER: ð PATENT NO. PATENT NO. DOCUMENT TYPE: RW: INVENTOR (S): LANGUAGE: 8 SOURCE: AB

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The present invention is directed to the use of certain polypeptides and polypeptide fragments of Nogo receptor-1 (NgR1) and Nogo receptor-2 (NgR2) for promoting neurite outgrowth, neuronal survival, and axonal regeneration in CNS neurons. Previous studies have shown that the entire leucine rich repeat (LRR) region of NgR1, including the C-terminal cap of LRR, LRR-CT, is needed rat, particularly the LRR-CT regions. Typically, the polypeptides and polypeptide fragments of the invention act to block NgR-mediated inhibition of for ligand binding, and that the adjacent CT stalk of the NgR1 contributes to neuronal survival, neurite outgrowth or axonal regeneration of CNS (central nervous system) neurons by inhibiting signal transduction by the NgR complex. interaction with its co-receptors. The inventors confirmed the amino acid sequence of human NgR1 by tryptic peptide mapping on a LC-MS system and determined the disulfide structure of NgR1 and NgR2 proteins from human and GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA AB The present

Neuronal degeneration treatment with Nogo receptor Biogen Idec Ma Inc., USA; The University of Lee, Daniel H. S.; Sah, Dinah W. Y.; So, Kwok Fai, Wu, Wutian LISI ANSWER 11 OF 50 HCAPLUS COPYRIGHT 2007 ACS ON STN ACCESSION NUMBER; 2006:1226364 HCAPLUS Full-text DOCUMENT NUMBER; 146:26348 Hong Kong PCT Int. Appl., 49pp. CODEN: PIXXD2 antagonists English FAMILY ACC. NUM. COUNT: PATENT ASSIGNEE (S): DOCUMENT TYPE: INVENTOR (S): LANGUAGE: SOURCE: TITLE:

PATENT INFORMATION:

CA, CH, GB, GD, KP, KR, MW, MX, SD, SE, UZ, VC, GR, HU, IE, TR, BF, BJ, TG, BW, GH, AM, AZ, BY, HU, IE, BF, BJ, BW, GH, P 20050512 P 20051110 20060512 KN, KP, H MN, MW, N SC, SD, S US, UZ, V KW, WK, SK. 28, SI, KG, WA, US 2005-679995P US 2005-735187P WO 2006-US18484 APPLICATION NO. SE, SE, SUG, S ₹ ₹ ₹ 72, 44.4 1.44.4 12, ES, MR, EE, ML, SZ, IS, LY, PH, DK, PL, SL, 2 3 2 E 4365 S 5 2 5 20061123 AU, DE, A S S S S E AT, LLS, SY, CY, CY, TU, AZ AM, CU, LLR, LLR, SM, SM, CH, CH, CH, CH, CM, CM, WO 2006124627 PATENT NO.

involving death or degeneration of retinal ganglion cells, including glaucoma, by the administration of Nogo receptor-1 (MRL) antagonists. The NRRL antagonists comprise: a soluble form of NRR of different lengths and with different (up to 10) conservative amino acid substitutions; soluble NgR1 The disclosed invention provides methods for treating conditions of the eye fusion with Ig Fc fragment, and different forms of anti-NgRl antibodies and antibody fragments.

AB

HCAPLUS COPYRIGHT 2007 ACS on STN 2006:411939 HCAPLUS Full-text	Att: #02010 Receptor-binding Nogo-A peptides,	Nogo receptor-1 mutant proteins with altered ligand binding, and pharmaceutical compositions	Strittmatter, Stephen M.	Yale University, USA	PCT Int. Appl., 87 pp.	Patent	English	, ,		DATE APPLICATION NO.		20080304 #O 2003-0333123	A	CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB,	HU, ID, IL, IN, IS,	LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX,	NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE,	SY, IJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN,	111 110 110 110 110 110 110 110 110 110	CI, CZ, DE, DK, EE, ES, FI, FK, GB, GK, HU,	LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BU,	MZ NA SD ST. SZ TZ TG ZM ZW AM AZ	TJ, TM		A1 20060504 CA 2005-2582581 20051003 <	A2 20070711 EP 2005-851216 20051003 <	CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,	LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, AL,		A 20070912 CN 2005-80033350 20051003 <	A 20070803 IN 2007-DN2424 20070330 <	2004-615371P P	WO 2005-US35719 W 20051003
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ACCESSION NUMBER:	TITLE:		INVENTOR (S) :	PATENT ASSIG	SOURCE:	DOCUMENT TYPE:	LANGUAGE:	FAMILY ACC.	PATENT INFOR		7000		WO 2006						i	 K#	•			AU 2005	CA 2582	EP 1805	ж ж			CN 101035803	IN 2007	PRIORITY APPLN.	

66 Receptor (NgR) to limit axonal regeneration after CNS injury. Nogo-A protein may play the most prominent role in vivo, perhaps because its action is mediated both by NgR and by other receptors. Here, we extend our previous anal. of Nogo-A and NgR functional domains. In addition to a NgR-dependent Nogo-66 inhibitory domain and a NgP-independent Amino-Nogo-A specific domain, we identify a third Nogo-A specific domain that binds to NgR with nanomalar affinity. This third domain of 19 amino acids (as) does not alter cell spreading or axonal outgrowth. Als-seanning mutagenesis of surface residues in NgR partially distinguishes ligand binding sites for the two Nogo domains and for MAG, OMgp and Lingo-1. Fusion of the two NgR-binding Nogo-A domains creates a ligand with ten-fold enhanced affinity for NgR and converts a NgR antagonist peptide to an agonist. Thus, inhibition of axonal regeneration by NgR occurs after binding a subnanomolar bipartite Nogo-A ligand at a site Nogo, MAG, and OMgp are myelin-derived proteins that bind to a neuronal Nogo partly overlapping with that for MAG and OMgp. ΑB

2006:1127901 HCAPLUS Full-text L151 ANSWER 13 OF 50 HCAPLUS COPYRIGHT 2007 ACS on STN ACCESSION NUMBER:

DOCUMENT NUMBER: TITLE:	146:355078 Extracellular regulators of axonal growth in the adult
AUTHOR(S):	Central nervous system Liu, Betty P.; Cafferty, William B. J.; Budel,
CORPORATE SOURCE:	Subjuste O.; Sullinguet, Subjuen W. Department of Neurology Yale University A. School of Wedicine New Haven CT. 05520 USA
SOURCE:	Philosophical Transactions of the Royal Society, B: Biological Sciences (2006), 361(1473), 1593-1610
PUBLISHER:	Royal Society
DOCUMENT TYPE: LANGUAGE:	Journal; General Review English
AB A review. Robust as neuronal connectivil	A review. Robust axonal growth is required during development to establish neuronal connectivity. However, stable fiber natterns are necessary to
maintain adult mammi	maintain adult mammalian central nervous system (CNS) function. After adult
function. Extracel.	the injuly, tattore that maintain axonal staning inmit the iteroresy of function. Extracellular mole. play an important role in preserving the
stability of the adi	stability of the adult CNS axons and in restricting recovery from pathol.
oligodendrocyte, No	oligodendrocyte, Nogo-A, myelin-associated glycoprotein, oligodendrocyte-
myelin glycoprotein as NgRl and EphA4. 1	myelin glycoprotein and ephrin-B3, which interact with axonal receptors, such as NgRl and EphA4. Extracellular proteoglycans containing chondroitin sulfates
also inhibit axonal astroglial scar for	also inhibit axonal sprouting in the adult CNS, particularly at the sites of astroalial scar formation. Therapeutic perturbations of these extracellular
axonal growth inhib a degree of axonal	axonal growth inhibitors and their receptors or signalling mechanisms provide a degree of axonal sprouting and regeneration in the adult CNS. After CNS
injury, such intervo REFERENCE COUNT:	injury, such interventions support a partial return of neurol. function.  215 THERE ARE 215 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE
	FORMAT
L151 ANSWER 14 OF 50 HCA	L151 ANSWER 14 OF 50 HCAPLUS COPYRIGHT 2007 ACS ON STN

ACCESSION NUMBER: 2006:1054881 HCAPLUS FULL-text
DOCUMENT NUMBER: 146:248181 HCAPLUS FULL-text
DOCUMENT NUMBER: 146:248181

TITLE: Axonal regeneration and recovery from chronic central nervous system injury
AUTHOR(S): CURLCE: Curlcumaturer, Ciephen M. CORPORATE SOURCE: School of Medicine, New Haven, CT, USA Principles of Molecular Medicine (2nd Edition) (2006), 1165-1172. Editor(8): Runge, Marschall S.; Patterson, Cam. Humana Press Inc.: Totowa, N. J. CODEN: 691MMX; ISBN: 1-58829-202-9
LANGUAGE: English English

As A review. Damage to the adult brain or spinal cord commonly produces persistent dysfunction without recovery. To replace lost neurons, stem cells, trophic factors, and transplantation of neural-competent cells might be relevant. Treatement of dysfunction based on the disconnection of surviving neurons requires the axonal respensation from remaining neurons and a degree of plasticity in neuronal connectivity. Those neurol. conditions in which axonal resentation and plasticity are most relevant are reviewed here. Recent scientific advances are likely to lead to the development of a novel group of therapeutics targeting axonal resentation for the recovery of function in chronic neurol. dysfunction.

function in chronic neurol. dysfunction.

REFERENCE COUNT:

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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## 10/553,669

1-text	Treatment of conditions involving dopaminergic neuronal degeneration using Nogo receptor antagonists	Relton, Jane K.; Engber, Thomas M.; Strittmatter, Stephen M.	. Yale			
PLUS Ful	ditions i	Engber,	nc., USA;	26 pp.		
2005:823596 HCAPLUS Full-text 143:222540	Treatment of con neuronal degener antagonists	Relton, Jane K.; Stephen M.	Biogen Idec MA Inc., USA, Yale University	PCT Int. Appl., 26 pp. CODEN: PIXXD2	Patent English I	
ACCESSION NUMBER: DOCUMENT NUMBER:	TITLE:	Inventor(s):	PATENT ASSIGNEE(S):	SOURCE:	DOCUMENT TYPE: LANGUAGE: FAMILY ACC. NUM. COUNT: PATENT INFORMATION:	

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The invention provides methods for promoting regeneration or survival of dopaminergic neurons in a mammal displaying signs or symptoms of dopaminergic neurons in a mammal displaying signs or symptoms of dopaminergic neurons in the number of surviving dopaminergic substantianists. The number of surviving dopaminergic neurons in the substantianists. The number of surviving dopaminergic neurons in the substantianists as significantly greater in Nogo receptor knockout mice compared to their heterozygote and wild-type litter-mate controls 4 wk after unilateral 6-hydroxydopamine injections. In addition, rotational behavior in response to apomorphine challenge was significantly lower in Nogo receptor. null mice. These data show increased neuronal survival and improved recovery of function in dopaminergic pathways in the brain after injury in mice lacking Nogo receptor antegonist sNgR(310) FC (soluble mature Nogo receptor fused with an Ig Fc fragment) increases cell survival and improved recovery in dopaminergic pathways in rat brain after injury. Thus, Nogo receptor antagonists comparing polypeptides, antibodies to the Nogo receptor protein, and small mol. may

promote regeneration and survival of dopaminergic neurons in mammals displaying degeneration.

C-Terminal Cap and C-Terminal Stalk Region of Nogo-66 Receptor Wen, Dingyi; Wildes, Craig P.; Silvian, Laura; Walus, Disulfide Structure of the Leucine-Rich Repeat Werner; Pepinsky, R. Blake Biogeniddec, Inc., Cambridge, MA, 02142, USA Biochemistry (2005), 44(50), 16491-16501 CODEN: BICHAW, ISSN: 0006-2960 Lee, Mi, Sha; Lee, Daniel H. S.; Meler, 2005:1250915 HCAPLUS Full-text on STN American Chemical Society COPYRIGHT 2007 ACS 144:46919 Journal English HCAPLUS L151 ANSWER 16 OF 50 ACCESSION NUMBER: CORPORATE SOURCE: DOCUMENT NUMBER DOCUMENT TYPE: AUTHOR (S): PUBLISHER: LANGUAGE: SOURCE:

Nogo-66 receptor (Nogl) is a leucine-rich repeat (LRR) protein that forms part of a signaling complex modulating axon regeneration. Previous studies have shown that the entire LRR region of NgR1, including the C-terminal cap of the LRR. LRRCT, is needed for ligand binding, and that the adjacent C-terminal region (CT stalk) of the NgR1 contributes to interaction with its coreceptors. To provide structure of full-length NgR1, our anal. revealed a novel disulfide structure in the C-terminal region of the NgR1, wherein the two Cys residues, Cys-135 and Cys-136, in the CT stalk are disulfide-linked to Cys-266 and Cys-309 in the LRRCT region: Cys-266 is linked to Cys-335, and Cys-399 to Cys-336. The other two Cys residues, Cys-264 and Cys-287, in the LRRCT region are disulfide-linked to each other. The anal. also showed that Cys-419 and Cys-419, in the CT stalk region, are linked to each other by a disulfide bond. Although published crystal structures of a recombinant fragment of NgR1 had revealed a disulfide linkage between Cys-266 and Cys-309 in the LRRCT region and we verified its presence in the corresponding fragment, this is arificially caused by the truncation of the protein, since this linkage was not detected in intact MyRl or a slightly larger fragment containing (Sys. 336 and Cys. 336. A structural model of the LRRCT with extended residues 311-344 from the CT stalk region is proposed, and its function in coreceptor binding

THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT 28 discussed. REFERENCE COUNT:

Promoting the regeneration of axons within the central From Neuroscience to Neurology (2005), 433-444. Editor(s): Waxman, Stephen. Elsevier Inc.: Park, James H., Strittmatter, Stephen M. Department of Neurology, Yale University School of Medicine, New Haven, CT, USA PLUS COPYRIGHT 2007 ACS on STN 2005:117342 HCAPLUS Full-text nervous system 143:52639 HCAPLUS L151 ANSWER 17 OF S0 ACCESSION NUMBER: DOCUMENT NUMBER: CORPORATE SOURCE: AUTHOR (S): TITLE:

CODEN: 69GMI9; ISBN: 0-12-738903-2 Conference; General Review DOCUMENT TYPE: LANGUAGE:

AB

A review. The peripheral nervous system axons, in contrast to the central nervous system, maintain their plasticity beyond the development of phase and remain capable of axonal regeneration after spinal cord injury. Progress in English

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identifying the mol. determinants promoting and inhibiting CNS axonal regeneration is discussed. Understanding how these determinants function, pharmacol. agents can be screened and medical treatments can be devised for the new therapeutic modality of axon regeneration in neuro-recovery.

75 THERE ARE 75 CITED REFERBICS AVAILABLE FOR THIS RECORD.

REFERENCE COUNT:

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Treatment of conditions involving amyloid plaques Strittmatter, Stephen M.; Lee, Daniel APLUS COPYRIGHT 2007 ACS on STN 2004:927061 HCAPLUS Full-text PCT Int. Appl., 43 pp. H. S.; Li, Welvei CODEN: PIXXD2 141:406109 English Patent FAMILY ACC. NUM. COUNT: PATENT INFORMATION: L151 ANSWER 18 OF 50 ACCESSION NUMBER: PATENT ASSIGNEE(S): DOCUMENT NUMBER: DOCUMENT TYPE: INVENTOR (S): LANGUAGE SOURCE:

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amyloid- $\beta$  (A $\beta$ ) peptide deposition, including Alzheimer's Disease, by the administration of Nogo receptor antagonists. The invention also provides method for reducing levels of A $\beta$  peptide in a mammal by the administration of soluble Nogo receptor polypeptides. WO 2004-US11728 W 20040416 The invention provides methods for treating diseases involving aberrant AB

L151 ANSWER 19 OF 50 HCAPLUS COPYRIGHT 2007 ACS on STN ACCESSION NUMBER: 2004:824033 HCAPLUS Full-text

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DOCUME TITLE:	DOCUMENT NUMBER: TITLE:	BER:			141: Prot rece	141:290091 Protein an receptor 1	141:290091 Protein and cDNA receptor 1 (NgR1)	CDNA NgR1	. ged	sequences of a novel human Nogo binding protein Sp35 and thera	ss oi	fa. Oteir	love]	. hun	id th	logo leraj	141:290091 Protein and cDNA sequences of a novel human Nogo receptor 1 (NgR1) binding protein Sp35 and therapeutic	
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2	antibodies and antigen-binding fragments thereof and nucleic	ten	and	anti	gen-	bind	ing	frag	nent	the che	reof	and	nuc	leic		ds e	acids encoding	
	the same. The invention also provides compns. comprising, and methods for		The	inve	ntio	n al	90 4	rovi	des .	compr	3.6	ompr hind	isin	g, a	nd m	etho	The invention also provides compns. comprising, and methods for main and sale antipodies antipos, binding framments thereof	
	Sp35 polypeptides and fusion proteins thereof.	1ype	ptic	les a	nd f	usio	n pr	otei	38 E	herec	, , ,		2	7) 5 4		5	1	

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ACCESSION NUMBER: 2004:718635 HCAPLUS FULL-text
DOCUMENT NUMBER: 141:236683
TITLE: Regeneration associated genes (RAGS) polypeptides, nucleic acidd, and their use in related neuronal disease treatment and drug screening Strittmatter, Stephen S.

PATENT ASSIGNEE(S): Yale University, USA

p.16

# 10/553,669 PCT Int. Appl., 114 pp. CODEN: PIXXD2 Patent English

SOURCE:

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	US 2006127397		20060615	2005-194074	20050729 <
144	PRIORITY APPLN. INFO.:			US 2003-443485P P P P P P P P P P P P P P P P P P P	20030130 < 20040130 <
*	AB The present inventi	on rela	tes generall	The present invention relates generally to regeneration associated genes	ated genes
	(RAGS). Specifically provided are 201-rags microarray studies of L3-5 DRG (dorsal root	ry prov of L3-5	DRG (dorsal	Specifically provided are zol-raws up-regulated mors, identified by studies of Li-5 DRG (dorsal root ganglia) neurons one week after	ne week after
	ipsilateral sciatic nerve transection.	nerve	transection.	The significant upregulation of four	lation of four
	RAGS: myosin-X, SUXII Fn14, a receptor for	II, FLK	13, Fn14, 18 necrosis-li	RAGS: myosin-X, SUXII, FLMI3, FNI4, 18 demonstrated. The Overexpression of Fn14, a receptor for tumor necrosis-like weak inducer of apoptosis (TWEAK),	expression or . osis (TWEAK),
	promotes neurite ex	ension	and growth	cone formation in PC12 c	ells. Fn14
	phys. interacts wit	the R	no family GT effects Fu	phys. interacts with the Rho family GTPase Racl, and Racl is necessary for the Fml4-induced neuronal cell effects. Furthermore, the invention relates to	ecessary for the relates to
	structure-based met	ods an	d compns. us	structure-based methods and compns. useful in designing, identifying,	ifying, and
	producing mols. which act	sh act	as functiona	producing mols. which act as functional modulators of RAGs and RAG	RAG
	preventing, and treating RAG-associated disorders.	ating R	AG-associate	d disorders. The RAG II	The RAG ID NOs: 1-281 were
	not made available in the release of this patent.	in the	release of t	his patent.	,
-	LISI ANSWER 21 OF 50 HC	HCAPLUS	OPYRIGHT 200	COPYRIGHT 2007 ACS on STN	•
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	DOCUMENT NOMBEK: TITLE:	Nodo recep	usb ceptor antac	140:198088 Nogo receptor antagonísts for promoting	
		surviva CNS neu	l of neuron ropathy, and	0 6	sclerosis, inal cord
_	INVENTOR (S):	injury Lee. Da	niel H. S.;	injury Lee. Daniel H. S.; Pepinsky, R. Blake;	
•		Li, Wei K., Wor	wei, Rabacch ley, Dane S	phe	Jane . :n M.
ш 07	PATENT ASSIGNEE(S): SOURCE:	; san, Yale Ur PCT Int	; san, Dinan I. W. Yale University, US PCT Int. Appl., 133	; San, Dinam i. M. Yale University, USA; Biogen, Inc. PCT Int. Appl., 133 pp.	
	DOCUMENT TYPE: LANGUAGE:	CODEN: PIXXD2 Patent English	PIXXD2		
н н	FAMILY ACC. NUM. COUNT: PATENT INFORMATION:	, 			
	PATENT NO.	KIND	DATE	PLICATION NO.	DATE
	WO 2004014311	A2	20040219	WO 2003-US25004	20030807 <
	111111111111111111111111111111111111111	!			

AB

thereof, soluble Nogo receptors and fusion proteins thereof and nucleic acids or viral vector encoding the same for gene therapy. These Nogo receptor-1, antagonists are useful for inhibiting growth cone collapse of neuron, Disclosed are immunogenic Nogo receptor-1 polypeptides, Nogo receptor-1 antibodies, antigen-binding fragments thereof, soluble Nogo receptors and fusion proteins thereof and nucleic acids encoding the same. Also disclosed are compns. comprising, and methods for making and using, such Nogo receptor decréasing inhibition of neurite outgrowth, promoting survival of CNS neuron and axonal growth, and are therefore useful for treating multiple sclerosis, W 20040130 <-antibodies, antigen-binding fragments, humanized and chimeric antibodies

p.17

### 10/553,669

ALS, Huntington's disease, Alzheimer's disease, Parkinson's disease, diabetes neuropathy, stroke, traumatic brain injury or spinal cord injury.

Modulators and modulation of the interacton between Strittmatter, Stephen; Mueller, Bernhard, Delithoff, Lutz Yale University, USA PCT Int. Appl., 50 pp. L151 ANSWER 22 OF 50 HCAPLUS COPYRIGHT 2007 ACS on STN ACCESSION NUMBER: 2004:20812 HCAPLUS Full-text RGM and neogenin CODEN: PIXXD2 140:87723 English Patent FAMILY ACC. NUM. COUNT: PATENT INFORMATION: PATENT ASSIGNEE(S): DOCUMENT NUMBER: DOCUMENT TYPE: INVENTOR (S): LANGUAGE: SOURCE: TITLE:

P 20020626 <--÷ 20050914 <--20030626 <-20030626 <-CA, CH, CN, GD, GE, GH, LC, LK, LR, NO, NZ, OM, TJ, TM, TN, AM, AZ, BY, DK, EE, ES, SI, SK, TR, SN, TD, TG 20030626 BZ, KZ, NI, SY, ZW, ZW, NE, WO 2003-US20147 WO 2003-US20147 APPLICATION NO. 20040108 20040826 20061109 KIND A2 A3 CZ, LV, LV, PT, UA, LS, RU, GR, CG, PRIORITY APPLN. INFO.: W: AE, AG, 1 CO, CR, C GM, HR, F LS, LT, L FG, PH, P TR, TT, T RW: GH, GM, K FI, FR, G BF, BJ, CI CA 2542171 AU 2003280420 US 2006252101 WO 2004003150 WO 2004003150 PATENT NO.

mols. (RGM's) and mammalian Neogenin. In addition, the invention provides for methods of preventing, alleviating or treating various disorders of the nervous system, angiogenic disorders or disorders of the cardio-vascular system and malignancies of different etiol. by disrupting the interaction between RGM and Neogenin. This invention relates to drug screening using mammalian repulsive guidance AB

L151 ANSWER 23 OF 50 HCAPLUS COPYRIGHT 2007 ACS on STN 2004:596882 HCAPLUS Full-text 141:168459 ACCESSION NUMBER: DOCUMENT NUMBER: TITLE:

Nogo receptor antagonism promotes stroke recovery by enhancing axonal plasticity Lee, Jung-Kil; Kim, Ji-Eun; Sivula, Michael; AUTHOR (S):

Strittmatter, Stephen M.
Department of Neurology, Yale University
School of Medicine, New Haven, CT, 06510, USA
Journal of Neuroscience (2004), 24(27), 6209-6217 CORPORATE SOURCE:

SOURCE:

CODEN: JNRSDS; ISSN: 0270-6474 Society for Neuroscience Journal PUBLISHER: DOCUMENT TYPE:

LANGUAGE: AB Afte

axonal plasticity is enhanced in ngr -/- or nogo-ab -/- mice. In rats with middle cerebral artery occlusion, both the recovery of motor skills and corticofugal axonal plasticity are promoted by intracerebroventricular administration of a function-blocking NgR fragment. Behavioral improvement occurs when therapy is intilated 1 wk after arterial occlusion. Thus, delayed pharmacol. blockade of the NgR promotes subacute stroke recovery by facilitating axonal plasticity. After ischemic stroke, partial recovery of function frequently occurs and may depend on the plasticity of axonal connections. Here, we examine whether blocked on the plasticity of axonal connections. Here, we examine whether sprouting and thereby recovery after focal brain infarction. Mutant mice lacking NgR or Nogo-AB recover complex motor function after stroke more completely than of control animals. After a stroke, greater nos. of axona emanating from the undamaged cortex cross the midline to innervate the contralateral red nucleus and the ipsilateral cervical spinal cord, this English

THERE ARE 62 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT REFERENCE COUNT:

COPYRIGHT 2007 ACS on STN 2004:984215 HCAPLUS Full-text HCAPLUS L151 ANSWER 24 OF 50 ACCESSION NUMBER:

141:377996 DOCUMENT NUMBER: TITLE:

Nogo-66 receptor prevents raphespinal and rubrospinal axon regeneration and limits functional recovery from spinal cord injury

Kim, Ji-Eun; Liu, Betty P.; Park, James H.; Strittmatter, Stephen M. AUTHOR (S):

Departments of Neurology and Neurobiology, Yale University School of Medicine, New Haven, CT, 06510, USA CORPORATE SOURCE:

Neuron (2004), 44(3), 439-451 CODEN: NERNET; ISSN: 0896-6273

Cell Press Journal DOCUMENT TYPE: PUBLISHER:

SOURCE:

Axon regeneration after injury to the adult mammalian CNS is limited in part by three inhibitory proteins in CNS myelin: Nogo-A, MAG, and OMgp. All three of these proteins bind to a Nogo-66 receptor (NgR) to inhibit axonal outgrowth in vitro. To explore the necessity of NgR for responses to myelin inhibitors and for restriction of axonal growth in the adult CNS, we generated ngr -/- mice. Mice lacking NgR are viable but display hypoactivity and motor impairment. DRG neurons lacking NgR do not bind Nogo-66, and their growth English LANGUAGE:

hemisection or complete transection of the spinal cord is improved in the ngr-/- mice. While corticospinal fibers do not regenerate in mice lacking NgR, regeneration of some raphespinal and tubrospinal fibers does occur. Thus, NgR is partially responsible for limiting the regeneration of certain fiber cones are not collapsed by Nogo -66. Recovery of motor function after dorsal

systems in the adult CNS. REFERENCE COUNT:

THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT 30

PLUS COPYRIGHT 2007 ACS on STN 2004:263762 HCAPLUS FUll-text HCAPLUS 20 L151 ANSWER 25 OF ACCESSION NUMBER:

A new role for Nogo as a regulator of vascular remodeling 140:285004 DOCUMENT NUMBER:

AUTHOR (S):

Acevedo, Lisette, Yu, Jun; Erdjument-Bromage, Hediye; Miao, Robert Qing; Kim, Ji-Eun; Fulton, David; Tempst, Paul; Strittmatter, Stephen M.; Sessa,

Boyer Center for Molecular Medicine, Department of Pharmacology and Program in Vascular Cell Signaling and Therapeutics, Yale University School of CORPORATE SOURCE:

Medicine, New Haven, CT, 06536, USA Nature Medicine (New York, NY, United States) (

SOURCE:

2004), 10(4), 382-388 CODEN: NAMEFI; ISSN: 1078-8956

Nature Publishing Group

Journal DOCUMENT TYPE: PUBLISHER:

English LANGUAGE:

Although Nogo-A has been identified in the central nervous system as an inhibitor of axonal regeneration, the peripheral roles of Nogo isoforms remain virtually unknown. Here, using a proteomic anal. to identify proteins enriched in caveolae and/or lipid rafts (CEM/IR), we show that Nogo-B is highly expressed in cultured endothelial and smooth muscle cells, as well as in inteact blood vessels. The N terminus of Nogo-B promotes the migration of endothelial cells but inhibits the migration of vascular smooth muscle (VSM) cells, processes necessary for vascular remodeling. Vascular injury in Nogo-A/B-deficient mice promotes exaggerated neointimal proliferation, and adenoviral-mediated gene transfer of Nogo-B rescues the abnormal vascular expansion in those knockout mice. Our discovery that Nogo-B is a regulator of vascular homeostasis and remodeling broadens the functional scope of this

THERE ARE 22 CITED REPERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT 22

family of proteins.

APLUS COPYRIGHT 2007 ACS on STN 2004:646415 HCAPLUS Full-text HCAPLUS L151 ANSWER 26 OF 50 ACCESSION NUMBER:

141:330089 DOCUMENT NUMBER:

Neonatal hypoxia suppresses oligodendrocyte

Nogo-A and increases axonal sprouting in a rodent model for human prematurity Weiss, Jared; Takizawa, Bayan; McGee, Aaron; Stewart, AUTHOR (S):

William B.; Zhang, Heping; Ment, Laura; Schwartz, Michael; Strittmatter, Stephen

Department of Neurology, Yale University School of Medicine, New Haven, CT, 06520, USA Experimental Neurology (2004), 189(1), CORPORATE SOURCE:

141-149 SOURCE:

CODEN: EXNEAC, ISSN: 0014-4886 Elsevier Journal DOCUMENT TYPE: PUBLISHER:

English LANGUAGE:

ANGOMOSE:

ANGOMOSE: maturity (P75), persistent abnormalities in axonal trajectories are

detectable. Anterograde axonal tracing from motor cortex demonstrates ectopic

corticofugal fibers in the corticospinal tract (CST), corpus callosum, and caudate nucleus of adult animals reared in CSH. Thus, hypoxia-induced reduction in myelin-derived axon outgrowth inhibitors appears to contribute axonal misconnection the pathol. of very low birth weight infants.

SHORE COUNT: REFERENCE COUNT:

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

Delayed systemic Nogo-66 receptor antagonist promotes recovery from spinal cord injury Li, Strittmatter, Stephen M. Beartment of Neurology and Section of Neurobiology, COPYRIGHT 2007 ACS on STN 2003:416397 HCAPLUS Full-text 139:332941 HCAPLUS L151 ANSWER 27 OF 50 ACCESSION NUMBER: CORPORATE SOURCE: DOCUMENT NUMBER: AUTHOR (S):

Yale University School of Medicine, New Haven, CT, 06520, USA Journal of Neuroscience (2003), 23(10),

CODEN: JNRSDS, ISSN: 0270-6474 Society for Neuroscience 4219-4227 Journal DOCUMENT TYPE: PUBLISHER:

Traumatized axons possess an extremely limited ability to regenerate within English LANGUAGE:

this lack of CNS repair. Although the intrathecal application of an MgR competitive antegonist at the time of spinal cord hemisection induces significant regeneration of corticospinal axons, such immediate local therapy may not be as clin. feasible for cases of spinal cord injury. Here, we protein IA), and synapse re-formation. Locomotor recovery after thoracic spinal cord injury is enhanced. Furthermore, delaying the initiation of systemic NEP1-40 administration for up to 1 wk after cord lesions does not limit the degree of axon sprouting and functional recovery. This indicates that the regenerative capacity of transected corticospinal tract axons peralsts for weeks after injury. Systemic Nogo-66 receptor antagonists have therapeutic potential for subacute CNS axonal injuries such as spinal cord the adult mammalian CNS. The myelin-derived axon outgrowth inhibitors Nogo, oligodendrocyte-myelin glycoprotein, and myelin-associated glycoprotein, all consider whether this approach can be adapted to systemic therapy in a postinjury therapeutic time window. S.C. treatment with the NgR antagonist peptide NEP1-40 (Nogo extracellular peptide, residues 1-40) results in bind to an axonal Nogo-66 receptor (NgR) and at least partially account for extensive growth of corticospinal axons, sprouting of serotonergic fibers, upregulation of axonal growth protein SPRRIA (small proline-rich repeat

THERE ARE 50 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT 20 REFERENCE COUNT:

HCAPLUS COPYRIGHT 2007 ACS on STN 2003:222475 HCAPLUS Full-text L151 ANSWER 28 OF 50 ACCESSION NUMBER:

DOCUMENT NUMBER:

139:66787
Rho kinase inhibition enhances axonal regeneration in the injured CNS
Fournier, Alyson E.; Takizawa, Bayan T.; Strittmatter, Stephen M.
Department of Neurology and Section of Neurobiology,
Yale University School of Medicine, New Haven,
CT, 06510, USA CORPORATE SOURCE: AUTHOR (S):

Journal of Neuroscience (2003), 23(4),

CODEN: JNRSDS; ISSN: 0270-6474 1416-1423

Society for Neuroscience PUBLISHER:

English

Rho, p160ROCK, inhibits neurite out-growth. Here, we demonstrate that Rho is directly activated by the myelin-associated inhibitor Nogo-66. Using a binding assay to measure Rho activity, we detected increased levels of GTP Rho in PL12 and dorsal root ganglion (DRG) cell lysates after Nogo-66 stimulation. Rho activity levels were not affected by Amino-Nogo stimulation. Rho inactivation with C3 transferase promotes neurite outgrowth of chick DRG neurons in vitro, but with the delivery method used here, it fails to promote neurite outgrowth after corticospinal tract (CST) lesions in the adult rat. Inhibition of p160ROCK with Y-27632 also promotes neurite outgrowth on myelinand spinal cord. A common target of many neurite outgrowth inhibitors is the Rho family of small GTPases. Activation of Rho and a downstream effector of Myelin-associated inhibitors limit axonal regeneration in the injured brain

associated inhibitors in vitro. Furthermore, Y-27632 enhances aprouting of CST fibers in vivo and accelerates locomotor recovery after CST lesions in THERE ARE 59 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT 59 REFERENCE COUNT:

HCAPLUS COPYRIGHT 2007 ACS on STN 2003:495446 HCAPLUS Full-text L151 ANSWER 29 OF 50 ACCESSION NUMBER:

Nogo-C is sufficient to delay nerve DOCUMENT NUMBER:

Kim, Ji-Eun; Bonilla, Iris E.; Qiu, Dike; regeneration

AUTHOR (S):

Strittmatter, Stephen M.
Departments of Neurology and Neurobiology,
Yale University School of Medicine, New Haven, CORPORATE SOURCE:

CT, 06510, USA Molecular and Cellular Neuroscience (2003),

23(3), 451-459 CODEN: MOCNED; ISSN: 1044-7431 SOURCE:

Elsevier Science Journal DOCUMENT TYPE: PUBLISHER:

English

LANGUAGE:

expression of the Nogo-66 domain by otherwise permissive myelinating cells is sufficient to hinder axonal reextension after trauma. Axonal regeneration succeeds in the peripheral but not central nervous system of adult mammals. Peripheral clearance of myelin coupled with selective CNS expression of axon growth inhibitors, such as Nogo, may account for this reparative disparity. To assess the sufficiency of Nogo for limiting axonal regeneration, the authors generated transgenic mice expressing Nogo-C in peripheral Schwann cells. Nogo-C includes the panisoform inhibitory Nogo-6 domain, but not a second Nogo-A specific inhibitory domain, allowing a selective consideration of the Nogo-66 region. The oct-6::nogo-c transgenic mice regenerate axons less rapidly than do wild-type mice after mid-thigh sciatic nerve crush. The delayed axonal regeneration is associated with a decreased recovery rate for motor function after sciatic nerve injury. Thus, THERE ARE 31 CITED REFERENCES AVAILABLE FOR THIS 31 REFERENCE COUNT:

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

COPYRIGHT 2007 ACS on STN 2003:269429 HCAPLUS Full-text HCAPLUS L151 ANSWER 30 OF 50 ACCESSION NUMBER:

139:130999 DOCUMENT NUMBER:

CORPORATE SOURCE:

AUTHOR (S):

McGee, Aaron W.; Strittmatter, Stephen M. Departments of Neurology and Neurobiology, The Nogo-66 receptor: focusing myelin inhibition of axon regeneration

Yale University School of Medicine, New Haven,

CT, 06520, USA Trends in Neurosciences (2003), 26(4),

CODEN: TNSCDR; ISSN: 0166-2236

Elsevier Science Ltd. Journal, General Review

English

DOCUMENT TYPE:

PUBLISHER: LANGUAGE:

SOURCE:

A review. CNS myelin inhibits axonal outgrowth in vitro and is one of several obstacles to functional recovery following spinal cord injury. Central to our current understanding of myelin-mediated inhibition are the membrane protein Nogo and the Nogo-66 receptor (  $\mbox{NgR})$  . New findings implicate  $\mbox{NgR}$  as a point of convergence in signal transduction for several myelin-associated inhibitors. Addnl. studies have identified a potential coreceptor for NgR as p75kTR, and a second-messenger pathway involving RhoA that inhibits neutite elongation. Although these findings expand our understanding of the mol. determinants of adult CNS axonal regrowth, the physiol. roles of myelin-associated inhibitors in the intact adult CNS remain ill-defined.

ENCE COUNT: 58 THERE ARE 58 CITED REFERENCES AVAILABLE FOR THIS ΑB

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT REFERENCE COUNT:

L151 ANSWER 31 OF 50 HCAPLUS COPYRIGHT 2007 ACS on STN

2003:377761 HCAPLUS Full-text 139:115755 ACCESSION NUMBER: DOCUMENT NUMBER:

Axon regeneration in young adult mice lacking Nogo-A/B

Kim, Ji-Eun; Li, Shuxin; GrandPre, Tadzia; Qiu, Dike;

AUTHOR (S):

Strittmatter, Stephen M. Department of Neurobiology, Papartment of Neurobiology, Yale University School of Medicine, New Haven, CORPORATE SOURCE:

;

ţ

CT, 06510, USA Neuron (2003), 38(2), 187-199 CODEN: NERNET; ISSN: 0896-6273

SOURCE:

Cell Press Journal DOCUMENT TYPE: PUBLISHER:

After injury, axons of the adult mammalian brain and spinal cord exhibit English LANGUAGE:

little regeneration. It has been suggested that axon growth inhibitors, such as myelin-derived Nogo, prevent CNS axon repair. To investigate this hypothesio, we analyzed mice with a nogo mutation that eliminates Nogo-A/B expression. These mice are viable and exhibit normal locomotion. Corticospinal tract tracing reveals no abnormality in uninjured nogo-A/B-/-mice. After spinal cord injury, corticospinal axons of young adult nogo-A/B-/- mice sprout extensively rostral to a transection. Numerous fibers regenerate into diseral cord segments of nogo-A/b-/- mice. Recovery of locomotor function is improved in these mice. Thus, Nogo-A plays a role in restricting axonal sprouting in the young adult CNS after injury.

THERE ARE 43 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT 4 REFERENCE COUNT

HCAPLUS COPYRIGHT 2007 ACS on STN 2002:276162 HCAPLUS Full-text L151 ANSWER 32 OF 50 ACCESSION NUMBER:

136:322700 DOCUMENT NUMBER: TITLE:

Sequence homologs of the Nogo receptor and their use as targets for control of axonal growth in the treatment of neurological disease Strittmatter, Stephen M.; Cate, Richard L.;

INVENTOR (S):

SOURCE:

Sah, Dinah W. Y. Yale University, USA, Biogen, Inc. PCT Int. Appl., 277 pp. PATENT ASSIGNEE (S) :

CODEN: PIXXD2

P 20001006 <--B1 20011006 <--W 20011006 <--A3 20031212 <--20011006 <--20011006 <--20011006 <--20061006 <--BE, CH, CY, SE, TR, BF, CH, CN, GE, GH, LK, LR, PH, PL, UA, UG, SE, MC, PT, 20011006 20011006 20011006 20011005 20031212 20011006 TD, TG TZ, ŽŽ, K2, NO, TT, AT, PT, SN, Ĕ, BZ, GB, UG, ZW, MC, NL, MR, NE, US 2006-544013 US 2000-238361P US 2001-972546 ' WO 2001-US31488 US 2003-735256 8 % k CA 2001-2424834 AU 2002-11539 US 2001-972546 EP 2001-979595 GB, GR, IT, LI, LU, CY, AL, TR WO 2001-US31488 NZ 2001-525422 AU 2002-211539 US 2003-735256 APPLICATION NO. 2002-532629 ΚP, ξ BR, ES, TZ, SZ, IT, GW, KE, SĽ, g SK, SL, IE, 20020415 20030703 20030709 20070206 20070125 20050303 AZ, DM, IS, MG, SI, ES, FR, RO, MK, SD, 20020411 20040924 20060929 20030123 20030515 20020411 ÄÖ, SG, ZW, MZ, GB, GB, Patent English ΩĶ, SE, ZA, MW, ¥, A3 A3 ξü, B B B B KE, FAMILY ACC. NUM. COUNT: PATENT INFORMATION: . PRIORITY APPLN. INFO.: W: AE, AG, CO, CR, CF, CG, R: AT, BE, IE, SI, CA 2424834 AU 200211539 US 2003124704 EP.1325130 WO 2002029059 2004528809 2002211539 2005048520 WO 2002029059 2007104713 GM, LS, PT, US, GН, ВЕ, 7173118 PATENT NO. 525422 LANGUAGE: AN NZ NZ ONS US US

proteins. Specifically, the invention includes peptides, proteins and antibodies that block Nogo -mediated inhibition of axonal extension. The compns. and methods of the invention are useful in the treatment of cranial or cerebral trauma, spinal cord injury, stroke or a demyelinating disease. The homologs were identified by TBLASTN querying of human and mouse genomic The invention relates generally to genes that encode proteins that inhibit axonal growth. The invention relates specifically to genes encoding NgR protein homologs in humans and mice. The invention also includes compns. and methods for modulating the expression and activity of Nogo and the NgR sequence databases. ΑB

L151 ANSWER 33 OF 50 HCAPLUS COPYRIGHT 2007 ACS ON STN ACCESSION NUMBER: 2002:849092 HCAPLUS Full-text DOCUMENT NUMBER: 138:252149

Truncated soluble Nogo receptor binds Nogo-66 and blocks inhibition of axon growth by myelin

Fournier, Alyson E.; Gould, Graham C.; Liu, Betty P.; Strittmatter, Stephen M. Department of Neurology and Section of Neurobiology, Vale University School of Medicine, New Haven,

CORPORATE SOURCE:

SOURCE:

AUTHOR (S):

TITLE:

CT, 06510, USA Journal of Neuroscience (2002), 22(20),

8876-8883

CODEN: JNRSDS; ISSN: 0270-6474 Society for Neuroscience Journa]

PUBLISHER:

English DOCUMENT TYPE: LANGUAGE:

signaling but not ligand binding. The NgR glycosylphosphatidylinositol domain is not essential for inhibitory signaling but may facilitate Nogo responses. From this anal., we have developed a soluble, truncated version of the Nogo receptor that antagonizes outgrowth inhibition on both myelin and Nogo substrates. These data suggest that NgR mediates a significant fraction of myelin inhibition of axon outgrowth. CNS myelin contains aron outgrowth inhibitors, such as Nogo, that restrict regenerative growth after injury. An understanding of the mechanism of Nogo adjanting through its receptor (NgR) is critical to developing strategies for overcoming Nogo-mediated inhibition. Here we analyze the function of NGR domains in outgrowth inhibition. Anal. of alkaline phosphatase (AP)-Nogo binding in COS-7 cells reveals that the leucine-rich repeat domain is necessary and sufficient for Nogo binding and NGR multimerization. Viral infection of embryonic day 7 chick retinal ganglion cells with mutated NgR demonstrates that the NGR C-terminal domain is required for inhibitory

THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT 30

REFERENCE COUNT:

COPYRIGHT 2007 ACS on STN 2002:519542 HCAPLUS Full-text LISI ANSWER 34 OF 50 HCAPLUS ACCESSION NUMBER: 2002:

137:260565 DOCUMENT NUMBER:

Localization of Nogo-A and Nogo-66

AUTHOR (S):

receptor proteins at sites of axon-myelin and synaptic

Wang, Xingxing; Chun, Soo-Jin; Treloar, Helen; Varianian, Timothy, Greer, Charles A.; Strittmatter, Stephen M. Department of Neurology, Yale University School of Medicine, New Haven, CT, 06510, USA Journal of Neuroscience (2002), 22(13),

CORPORATE SOURCE:

5505-5515

SOURCE:

CODEN: JNRSDS; ISSN: 0270-6474 Society for Neuroscience

Journal PUBLISHER:

English DOCUMENT TYPE: LANGUAGE:

Receptor (1918) on axone has been suggested to play an important role in limiting axonal growth. Here, we compare the localization of these two proteins immunohistochem. as a test of this hypothesis. Throughout much of the adult CNS, Nogo-A is detected on oligodendrocyte processes surrounding myelinated axons, including areas of axon-oligodendrocyte contact. The NgR protein is detected ealectively in neurons and is present throughout axons, indicating that Nogo-A and its receptor are juxtaposed along the course of myelinated fibers. NgR protein expression is restricted to postnatal neurons and their axons. In contrast, Nogo-A is observed in myelinating that Nogo-A and its receptor are juxtaposed along that Nogo-A has addni. physiol. roles unrelated to NgR binding. After spinal cord injury, Nogo-A is upregulated to a moderate degree, whereas NgR levels are maintained at constant levels. Taken together, these data confirm the apposition of Nogo ligand and NgR receptor in stuations of limited axonal regeneration and support the hypothesis that this system regulates CNS axonal plasticity and Axon regeneration in the adult CNS is limited by the presence of inhibitory proteins. An interaction of Nogo on the oligodendrocyte surface with Nogo-66 recovery from injury.

THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT 23

REFERENCE COUNT:

COPYRIGHT 2007 ACS on STN 647265 HCAPLUS Full-text 2002:647265 HCAPLUS L151 ANSWER 35 OF 50 ACCESSION NUMBER: DOCUMENT NUMBER: Myelin-associated glycoprotein as a functional ligand for the Nogo-66 receptor

Betty P.; Fournier, Alyson; GrandPre, Tadzia;

Lilu, percy. Stephen M. Strittmatter, Stephen M. Department of Neurology and Section of Neurobiology, Department of Neurology and Section New Haven,

CORPORATE SOURCE:

AUTHOR (S):

CT, 06510, USA

Science (Washington, DC, United States) (2002

), 297(5584), 1190-1193 CODEN: SCIEAS; ISSN: 0036-8075 American Association for the Advancement of Science

Journal .English DOCUMENT TYPE:

PUBLISHER:

SOURCE:

Axonal regeneration in the adult central nervous system (CNS) is limited by LANGUAGE:

two proteins in myelin, Nogo and myelin-associated glycoprotein (MAG). The receptor for Nogo (NgR) has been identified as an axonal glycosylphosphatidy1-inositol (GPI)-anchored protein, whereas the MAG receptor has remained elusive. Here, we show that MAG binds directly, with high affinity, to NgR. Cleavage of GPI-linked proteins from axons protects growth cones from mAG-induced collapse, and dominant-neg. NgR eliminates MAG inhibition of neurite outgrowth. MAG-resistant embryonic neurons are rendered MAG-sensitive by expression of NgR. MAG and Nogo-66 activate NgR independently and serve as redundant NgR ligands that may limit axonal regeneration after CNS injury. ENCE COUNT:

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

REFERENCE COUNT:

L151 ANSWER 36 OF 50 HCAPLUS COPYRIGHT 2007 ACS on STN ACCESSION NUMBER: 2002:403264 HCAPLUS Full-text

137:362909 DOCUMENT NUMBER:

Nogo-66 receptor antagonist peptide promotes GrandPre, Tadzia; Li, Shuxin, Strittmatter, axonal regeneration

Stephen M. AUTHOR (S):

Department of Neurology and Section of Neurobiology, Tale University School of Medicine, New Haven, CORPORATE SOURCE:

Nature (London, United Kingdom) (2002), 417(6888), 547-551 CT, 06520, USA SOURCE:

CODEN: NATUAS; ISSN: 0028-0836 Nature Publishing Group PUBLISHER:

English Journal DOCUMENT TYPE: LANGUAGE:

lack of axonal regeneration in the central nervous systems (CNS) after trauma in adult mammals. A 66-residue domain of Nogo (Nogo-66) is expressed on the surface of oligodendrocytes and can inhibit axonal outgrowth through an axonal Nogo-66 receptor (NgR). The IN-1 monoclonal antibody recognizes Nogo-A and promotes corticospinal tract regeneration and locomotor recovery; however, the undefined nature of the IN-1 epitope in Nogo, the limited specificity of IN-1 for Nogo, and nonspecific anti-myelin effects have prevented a firm conclusion about the role of Nogo-66 or NgR. Here, we identify competitive antagonists of NgR darived from amino-terminal peptide fragments of Nogo-66. The Nogo-66 or NgR hare antagonists of Nago-66 or NgR hare hard no attagonist peptide (NgRP-40) blocks Nogo-66 or CNS myelin inhibition of axonal outgrowth in vitro, demonstrating that NgR mediates a significant portion of axonal outgrowth inhibition by myelin. Intrathecal administration of NEP1-40 to rats with mid-thoracic spinal cord hemisection results in Myelin-derived axon outgrowth inhibitors, such as Nogo, may account for the significant axon growth of the corticospinal tract, and improves functional

recovery. Thus, Nogo-66 and NgR have central roles in limiting axonal regeneration after CNS injury, and NEP1-40 provides a potential therapeutic

THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT Nogo and the Nogo-66 receptor Fournier, Alyson B., Grandbre, Tadzia, Gould, Graham; Wang, Kingxing, Strittmatter, Stephen M. Department of Neurology and Section of Neurobiology, APLUS COPYRIGHT 2007 ACS on STN 2002:909304 HCAPLUS Full-text 138:300857 HCAPLUS 14 20 LISI ANSWER 37 OF ACCESSION NUMBER: CORPORATE SOURCE: REFERENCE COUNT: DOCUMENT NUMBER: AUTHOR (S):

Yale University School of Medicine, New Haven, CT, 06510, USA

Progress in Brain Research (2002), 137(Spinal Cord Trauma), 361-369 CODEN: PBRRA4; ISSN: 0079-6123 Journal, General Review Elsevier Science B.V. DOCUMENT TYPE: PUBLISHER: SOURCE:

(CNS) myelin preventing axonal regeneration in the adult vertebrate CNS. Our previous anal. of Nogo-A demonstrated that an axon-inhibiting 66 aa domain is expressed at the extracellular surface and the endoplasmic reticulum lumen of transfected cells and oligodendrocytes. We have identified a brain specific leucine-rich repeat protein with high affinity for soluble Nogo-66. Cleavage of the Nogo-66 receptor from axonal surfaces renders neurons insensitive to inkop-66. Nogo-66 receptor expression is sufficient to impart Nogo-66 axonal inhibition to unresponsive neurons. With identified ligand and receptor components, structure-function determinants for inhibition of axon regeneration can now be mapped. The relative contribution of Nogo, myelinassociated glycoprotein, chondroitin sulfate proteoglycan and oligodendrocyte
myelin glycoprotein to myelin inhibition can be assessed. Blockade of Nogo-66
interaction with its receptor provides one potential avenue to promote axonal
regeneration after adult mammalian CNS injury.

43 THERE ARE COUNT:
RECOUNT: RECORD ALL CITATIONS AVAILABLE FOR THIS
RECORD. A review. Nogo has been identified as a component of central nervous system English LANGUAGE: AB

REFERENCE COUNT:

Modulation of axonal regeneration in neurodegenerative Strittmatter, Stephen M.
Department of Neurology, and Section of Neurobiology,
Yale University School of Medicine, New Haven,
CT, 06510, USA HCAPLUS COPYRIGHT 2007 ACS on STN .2002:694987 HCAPLUS Full-text disease. Focus on Nogo 137:350109 LISI ANSWER 38 OF 50 ACCESSION NUMBER: DOCUMENT NUMBER: AUTHOR(S): CORPORATE SOURCE: SOURCE:

Journal of Molecular Neuroscience (2002), 19(1/2), 117-121 CODEN: JMNEES; ISSN: 0895-8696

Journal; General Review Humana Press Inc. English DOCUMENT TYPE: LANGUAGE: PUBLISHER:

Nogo Receptor. The Nogo system appears to have a physiol. role in regulating structural plasticity. The possibility that the Nogo system contributes to A review. Recent work has demonstrated that axonal regeneration in the central nervous system is limited by myelin-derived  ${\sf Nogo}$  binding to an axonal structural plasticity. The possibility that the Nogo system contributes to pathol. and compensatory plasticity in Alzheimer's Disease is considered.

SNCE COUNT:

11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS REFERENCE COUNT:

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

20010112 <--SE, MC, PT, į : : : : į į ÷ 20010112 <--;; į 20010112 <--20010112 <--20010112 <--AT, BE, CH, CY, PT, SE, TR, BF, TD, TG A3 20010112 < A3 20010112 < A2 20010112 < A2 20010112 < 20010112 < 20010112 < 20010112 < 20010112 < 20010112 < 20010112 < 20011006 < CH, CN, GM, HR, LS, LT, RO, RU, UZ, VN, 20020705 20060227 20020703 20020712 20000526 20020712 20000929 DATE Nogo receptors, and therapeutic uses thereof for diseases associated with Nogo receptor-mediated blockade of axonal growth Protein and cDNA sequences of human and BZ, GE, LK, PL, UG, ZĽ, , SZ, TZ, UG, ZW, A ; IT, LU, MC, NL, P f, ML, MR, NE, SN, T CA 2001-2397199 AU 2001-29401 BY, GD, KZ, UA, GR, IT, LI, LU, AL, TR 2000-207366P 2000-236378P APPLICATION NO. WO 2001-US1041 2001-551104 2002-386 EP 2001-942367 2001-520065 2002-106907 2001-541694 2001-972599 2002-PA6885 2006-200819 HU 2002-3863 JP 2001-551104 EE 2002-386 2001-29401 2002-KN890 APLUS COPYRIGHT 2007 ACS on STN 2001:526105 HCAPLUS Full-text BR, GB, KZ, NO, TZ, 2001-7613 1991-5477 2002-5403 2002-3387 ₹ £, Strittmatter, Stephen M. Yale University, USA PCT Int. Appl., 109 pp. CODEN: PIXXD2 Ä, NH BR g 5 SL, IE, GW, 20010719 20010719 20010724 20060316 20021016 20021119 20030328 20030624 20031215 20070427 20020911 AZ, DZ, KE, MN, gr, so, ES, FR, RO, MK, 20020418 20060831 20061010 20060922 20030530 20040120 20060224 AU, JP, MK, SL, FR, GB, CM, GA, MZ, 135:117242 AT, DK, IS, MG, SK, Œ, DK, English Patent KIND HCAPLUS A2 A3 AM, 1 DE, IN, SI, AL, CZ, TL, TL, XA, KE, CG, ¥ ; FAMILY ACC. NUM. COUNT: PATENT INFORMATION: PRIORITY APPLA. INFO.: W: AE, AG, P CR, CU, C HU, ID, P LU, LV, N SD, SE, S YU, ZA, P RW: GH, GM, H BJ, CF, C L151 ANSWER 39 OF 50 R: AT, BE, IE, SI, 2002003863 2003519481 200200386 PATENT ASSIGNEE (S): 2002KN00890 2002PA06885 2001051520 2001051520 2002077295 2006200819 2001007613 2002005403 2001051520 2002003387 200129401 ACCESSION NUMBER: CA 2397199 AU 20012940: AU 784349 EP 1248803 DOCUMENT NUMBER 7119165 PATENT NO. 520065 541694 DOCUMENT TYPE: 106901 INVENTOR(S): LANGUAGE: § § ş SOURCE:

AB

receptor proteins and biol. active Nogo (ligand) protein fragments, which are members of the reticulon family proteins. Also disclosed are compns. and methods for modulating the expression or activity of the Nogo and Nogo receptor protein. Also disclosed are peptides which block Nogo-mediated inhibition of axonal extension. The compns. and methods of the invention are useful in the treatment of cranial or cerebral trauma, spinal cord injury, The invention provides protein and cDNA sequences of human and mouse Nogo WO 2001-US1041 stroke or a demyelinating disease.

136:67265 Nogo: A molecular determinant of axonal growth and regeneration Tadzia, Grandpre; Strittmatter, Stephen M. L151 ANSWER 40 OF 50 HCAPLUS COPYRIGHT 2007 ACS on STN 2001:785101 HCAPLUS Full-text ACCESSION NUMBER: DOCUMENT NUMBER: TITLE:

CORPORATE SOURCE: AUTHOR (S):

Department of Neurology, Yale University School of Nedicine, New Haven, CT, 06520, USA Neuroscientist (2001), 7(5), 377-386 CODEN: NROSFJ; ISSN: 1073-8584 Sage Publications, Inc. PUBLISHER: SOURCE:

Journal, General Review

DOCUMENT TYPE:

inability of CNS axons to regenerate is largely associated with nonneuronal aspects of the CNS environment that are inhibitory to axonal elongation. This inhibition is mediated by the glial scar, including reactive astrocytes, and by the myelin-associated neutrite outgrowth inhibitors chondroitin sulfate proteoglycans, myelin-associated glyco-protein, and Nogo. Nogo is an integral membrane protein that localizes to CNS, but not peripheral nervous system, myelin. In vitro characterization of Mogo has demonstrated its function as a potent inhibitor of axon elongation. In vivo neutralization of Nogo activity A review and discussion with many refs. Following injury, axons of the adult mammalian central nervous system (CNS) fail to regenerate. As a result, CNS trauma generally results in severe and persistent functional deficits. The results in enhanced axonal regeneration and functional recovery following CNS injury as well as increased plasticity in uninjured CNS fibers. These findings suggest that Nogo may be a major contributor to the nonpermissive nature of the CNS environment. English LANGUAGE:

THERE ARE 68 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT 68

LIS1 ANSWER 41 OF 50 HCAPLUS COPYRIGHT 2007 ACS on STN ACCESSION NUMBER: 2001:66960 HCAPLUS Full-text

Identification of a receptor mediating Nogo 134:205513

Strittmatter, Stephen M. Department of Neurobiology, -66 inhibition of axonal regeneration Fournier, Alyson E.; GrandPre, Tadzia; CORPORATE SOURCE:

AUTHOR (S):

Yale University School of Medicine, New Haven, CT, 06520, USA Nature (London) (2001), 409(6818), 341-346 CODEN: NATUAS; ISSN: 0028-0836 Nature Publishing Group

Nogo has been identified as a component of the central nervous system (CNS) myelin that prevents axonal regeneration in the adult vertebrate CNS. Anal of Nogo-A has shown that an axon-inhibiting domain of 66 amino acids is English LANGUAGE:

Journal

DOCUMENT TYPE:

PUBLISHER:

SOURCE:

expressed at cellular surface and at the endoplasmic reticulum lumen of transfected cells and oligodendrocytes. The acidic amino terminus of Nogo-A is detected at the cytosolic face of cellular membranes and may contribute to inhibition of axon regeneration at sites of oligodendrocyte injury. Here we show that the extracellular demain of Nogo (Nogo -66) inhibits axonal extension, but does not alter non-neuronal cell morphol. In contrast, a multivalent form of the N terminus of Nogo-A affects the morphol. of both neurons and other cell types. Here we identify a brain-specific, leucine-rich-repeat procein with high affinity for soluble Nogo-66. Cleavage of the Nogo-66 receptor and other glycophosphatidylinositol-linked proteins from axonal surfaces renders neurons insensitive to Nogo-66. Nogo -66 receptor expression is sufficient to impart Nogo-66 axonal inhibition to unresponsive neurons. Disruption of the interaction between Nogo-66 and its receptor provides the potential for enhanced recovery after human CNS injury.

Repulsive factors and axon regeneration in the CNS Fournier, Alyson E.; Strittmatter, Stephen M. Department of Neurology and Section of Neurobiology, Yale University School of Medicine, New Haven, CT, 06520, USA Current Opinion in Neurobiology (2001), L151 ANSWER 42 OF 50 HCAPLUS COPYRIGHT 2007 ACS on STN ACCESSION NUMBER: 2001:175671 HCAPLUS Full-text 11(1), 89-94 CODEN: COPUEN; ISSN: 0959-4388 Elsevier Science Ltd. Journal, General Review 134:234759 English CORPORATE SOURCE: DOCUMENT NUMBER: DOCUMENT TYPE: AUTHOR (S): LANGUAGE: AB A rev SOURCE:

A review, with 46 refs. During the past year, a major advance in the study of axon regeneration was the mol. cloning of Nogo. The expression of Nogo protein by central nervous system (CNS) myelin may be a major factor in the The effect of disrupting Nogo-dependent immunization with a  ${\rm Nogo}$  -containing CNS myelin preparation was shown to promote regeneration and dramatic functional recovery after spinal cord axon inhibition can now be studied conclusively. In related work, failure of CNS axon regeneration.

46 THERE ARE 46 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT REFERENCE COUNT:

L151 ANSWER 43 OF 50 HCAPLUS COPYRIGHT 2007 ACS on STN 2000:97195 HCAPLUS Full-text ACCESSION NUMBER:

132:220197 Identification of the Nogo inhibitor of axon regeneration as a Reticulon protein DOCUMENT NUMBER:

GrandPre, Tadzia, Nakamura, Fumio, Vartanian, Timothy; CORPORATE SOURCE: AUTHOR(S):

Strittmatter, Stephen M. Department of Neurobiology, Yale University School of Medicine, New Haven,

Nature (London) (2000), 403(6768), 439-444 CT, USA SOURCE:

CODEN: NATUAS; ISSN: 0028-0836 Nature Publishing Group English Journal DOCUMENT TYPE: PUBLISHER: LANGUAGE:

Adult mammalian axon regeneration is generally successful in the peripheral nervous system (PNS) but is dismally poor in the central nervous system (CNS). However, many classes of CNS axons can extend for long distances in peripheral nerve grafts. A comparison of myelin from the CNS and the PNS has revealed

identify Nogo as a member of the Reticulon family, Reticulon 4-N. Nogo is expressed by oligodendrocytes but not by Schwann cells, and assocs. primarily with the endoplasmic reticulum. A 6s-residue lumenal/extracellular domain inhibits axonal extension and 1 are not expressed by oligodendrocytes. In contrast to Nogo, Reticulon 1 and 3 are not expressed by oligodendrocytes, and the 6s-residue lumenal/extracellular domains from Reticulon 1, 2 and 3 do not inhibit axonal regeneration. These data provide a mol. basis to assess the contribution of Nogo to the failure of axonal regeneration in the adult CNS. ENCE COUNT: axonal regeneration and functional recovery after spinal cord injury. Here we Several that CNS white matter is selectively inhibitory for axonal outgrowth. Sever components of CNS white matter, N135, N1250 (N260) and Mod, that have lathibitory activity for axon extension have been described. The IN-1 antibody, which recognizes N135 and N1250(N0go), allows moderate degrees of RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT REFERENCE COUNT:

L151 ANSWER 44 OF 50 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on DUPLICATE 8

2003:47271 BIOSIS Full-text ACCESSION NUMBER:

PREV200300047271 DOCUMENT NUMBER: TITLE:

Consistent immunohistochemical detection of intracellular beta-amyloid42 in pyramidal neurons of Alzheimer's disease

entorhinal cortex. D'Andrea, Michael R.; Nagele, Robert G.; Wang, Hoau-Yan; Lee, Daniel H. S. [Reprint Author] AUTHOR (S):

Blogen Inc., 14 Cambridge Center, Cambridge, MA, CORPORATE SOURCE:

02142, USA

daniel\_lee@biogen.com
daniel\_lee@biogen.com
burcoscience\_Letters. (November 29 2002) Vol.
333, No. 3, pp. 163-166. print.
ISSN: 0304-3940 (ISSN print).

SOURCE:

Entered STN: 15 Jan 2003 English DOCUMENT TYPE: ENTRY DATE: LANGUAGE:

protocols immunostained Abeta42 in amyloid plaques using four commercially-obtained Abeta42 specific antibodies, only the HEAT protocol consistently detected prominent intracellular Abeta42 in pyramidal neurons. This suggests that the Abeta42 present in amyloid plaques may be structurally distinct from that located within the neurons perhaps due to differential binding proteins We compared the effects of three pretreatment immunohistochemical techniques (no pretreatment, pepsin predigestion and heat pretreatment (HEAT)) for coupling or a consequence of formalin fixation. Detection of an abundant intracellular Abeta42 in neurons may provide alternate explanations for the origin of dense-core amyloid plaques in AD cortices other than the conventional chronic extracellular Abeta42 deposition hypothesis. detecting intracellular beta-amyloid42 (Abeta42) in pyramidal neurons of formalin-fixed Alzheimer's disease (AD) cortices (n=25). Although all three Last Updated on STN: 15 Jan 2003 B

L151 ANSWER 45 OF 50 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on

2004:191837 BIOSIS Full-text PREV200400190211 ACCESSION NUMBER: DOCUMENT NUMBER: TITLE:

AUTHOR (S):

The Nogo66 receptor as a drug discovery target for promoting CNS axon regeneration.

Lee, D. H. S. [Reprint Author]; Li, S.; Kim, J.-S.; Liu, B. P.; Li, W. [Reprint Author]; Li, M. [Reprint Author]; Ji. B. [Reprint Author]; Walus, L. [Reprint Author]; Jirik, A. [Reprint Author]; Rabacchi, S. [Reprint

Author]; Choi, E. [Reprint Author]; Silvian, L. [Reprint Author]; Benedetti, N. J. [Reprint Author]; Benedetti, N. J. [Reprint Author]; Schauer, J. [Reprint Author]; Zheng, B. [Reprint Author]; Chang, E. [Reprint Author]; Mi, S. [Reprint Author]; Lee, X. [Reprint Author]; Mo, S. [Reprint Author]; Mollen, C. [Reprint Author]; Wollen, W. [Reprint Author]; Mollen, C. [Reprint Author]; Wollen, C. [Reprint Author]; McCoy, J. [Reprint Author]; Sah, D. W. Y. [Reprint Author]; Strittmatter, S. M. 88, No. Supplement 1, pp. 13. print. Meeting Info.: 6th Biennial Meeting of the Asian-Pacific Society for Neurochemistry (APSN). Hong Kong, China. February 04-07, 2004. Asian-Pacific Society for Biogen Inc., Cambridge, MA, USA Journal of Neurochemistry, (Pebruary 2004) Vol. Neurochemistry. CORPORATE SOURCE:

CODEN: JONRA9. ISSN: 0022-3042.

Conference; Abstract; (Meeting Abstract) Conference; (Meeting) DOCUMENT TYPE:

Last Updated on STN: 7 Apr 2004 Entered STN: 7 Apr 2004 English

ENTRY DATE:

LANGUAGE:

L151 ANSWER 46 OF 50 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation

2003:293946 BIOSIS Full-text ACCESSION NUMBER: DOCUMENT NUMBER:

PREVZO0300293946
NEUTRALIZATION OF MYELIN - ASSOCIATED NOGO - A BY A NOGO
RECEPTOR - FC FUSION PROTEIN.

Li, W. [Reprint Author]; Walus, D. [Reprint Author]; Jirik, A. [Reprint Author]; Pepinsky, B. [Reprint Author]; Sah, D. W. Y. [Reprint Author]; Lee, D. H. S. [Reprint

AUTHOR (S):

Author]; Fournier, A.; Strittmatter, S.; Rabacchi, S. A.

[Reprint Author] CORPORATE SOURCE:

BIOGEN, Inc., Cambridge, MA, USA Society for Neuroscience Abstract Viewer and Itinerary

Planner, (2002) Vol. 2002, pp. Abstract No. 333.2. http://sfn.scholarone.com. cd-rom. Meeting Info.: 32nd Annual Meeting of the Society for Neuroscience. Orlando, Florida, USA. November 02-07, 2002.

Conference; (Meeting) Conference; (Meeting Poster) Society for Neuroscience. DOCUMENT TYPE:

Conference; Abstract; (Meeting Abstract) English LANGUAGE:

Last Updated on STN: 25 Jun 2003 Entered STN: 25 Jun 2003 ENTRY DATE:

raised against the Nogo receptor. Ig-sNogoR inhibits 1251-Nogo66 binding to the Nogo receptor in a scintillation proximity assay system with an IC50 appxx100nM. In addition, we tested Ig-sNogoR as a potential antagonist of the inhibitory effects of NogoA on P4 rat DRG neurite outgrowth in vitro. In this Nogo A plays a major role in the inhibitory activity of CNS myelin on axonal regeneration after CNS injury. We generated a secreted recombinant Nogo receptor-Fc fusion protein (Ig-sNogoR) and evaluated its ability to interfere with the Nogo-Nogo receptor interaction. CHO cells were transfected with a plasmid construct encoding the 1-310 residues of the extracellular domain of rat Nogo receptor fused with the Fc and hinge from rat IgGl. The secreted procletin product was purified on protein A-Sepharose and characterized by N-terminal sequencing, SDS-PAGE, and Western blot and ELISA using antibodies AB

assay, Ig-sNogoR fully reverses the inhibitory effects of NogoA-containing CNS myelin in a dose-dependent manner, with maximal protection seen at apprx0.5 muM. Thus, the NogoR-Fc fusion protein disrupts the NogoA-NogoR interaction promotes neurite growth in the presence of CNS myelin, further substantiating the role of Nogo and NogoR in axonal regeneration

6 LISI ANSWER 47 OF 50 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation

2003:293947 BIOSIS Full-text ACCESSION NUMBER:

DOCUMENT NUMBER: TITLE:

AUTHOR (S):

CHARACTERIZATION OF A MONOCLONAL ANTI - NOGO RECEPTOR ANTIBODY

Mullen, C. [Reprint Author]; Li, W. [Reprint Author]; Rabacchi, S. [Reprint Author]; Vang, W. [Reprint Author]; Crowell, T. [Reprint Author]; Gardner, H. [Reprint Author]; Sandrock, A. W. [Reprint Author]; Walus, L. [Reprint Author]; Sandrock, A. W. [Reprint Author]; Sah, D. W. Y. [Reprint Author]; Reprint Author]; Reprint Author]; Hitlasz, S. [Reprint Author]; Neurodegeneration, Biogen and comma; Inc.,

Cambridge, MA, USA CORPORATE SOURCE:

Society for Neuroscience Abstract Viewer and Itinerary Planner, (2002) Vol. 2002, pp. Abstract No.

SOURCE:

333.3. http://afn.acholarone.com. cd-rom. Meeting Info.: 32nd Annual Meeting of the Society for

Neuroscience. Orlando, Florida, USA. November 02-07, 2002.

Society for Neuroscience.

(Meeting) Conference; DOCUMENT TYPE:

Conference, Abstract, (Meeting Abstract) Conference; (Meeting Poster)

Entered STN: 25 Jun 2003 English ENTRY DATE: LANGUAGE:

CNS axong do not regenerate after injury because CNS myelin contains molecules that negatively regulate CNS axonal regeneration. The neuronal GPI-anchored protein, Nogo receptor, mediates inhibitory effects of CNS myelin on axonal regeneration. Modulation of the interaction of Nogo receptor with its ligands experiments and in studying the expression profile of Nogo receptor in tissues by immunohistochemistry and Western analyses will be discussed. in CNS myelin may promote axonal regeneration, thereby providing a novel therapeutic opportunity for treating neurodegenerative disorders including spinal cord injuries, traumatic brain injuries, stroke and multiple sclerosis. We have generated murine monoclonal anti-Nogo receptor antibodies using full length Nogo receptor expressed on cells as the antigen. Here, we report on the characterization of one monoclonal anti-Nogo receptor antibody, 1H2. 1H2 is an lsG1, recognizes the carboxyl region of the Nogo receptor distal to the leucine rich repeat motifs, and binds COS cells expressing Nogo receptor in The applications of this antibody in immunoprecipitation Last Updated on STN: 25 Jun 2003 FACS analysis. AB

ទ LISI ANSWER 48 OF 50 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation

2003:293944 BIOSIS Full-text PREV200300293944 ACCESSION NUMBER: DOCUMENT NUMBER:

CHARACTERIZATION OF AN ANTI - NOGO RECEPTOR FAB THAT DISRUPTS NOGOA/NOGO RECEPTOR INTERACTION. TITLE:

Choi, E. D. [Reprint Author]; Rabacchi, S. A. [Reprint Author]; Li, W. [Reprint Author]; Jirik, A. [Reprint Author]; Pepinsky, B. [Reprint Author]; Sah, D. W. Y.

AUTHOR (S):

[Reprint Author]; Lee, D. H. S. [Reprint Author]; worley, D. S. [Reprint Author] Blocken, Inc., Cambridge, MA, USA Society for Neuroscience Abstract Viewer and Itinerary CORPORATE SOURCE:

Planner, (2002) Vol. 2002, pp. Abstract No.

333.1. http://sfn.scholarone.com. cd-rom.

Meeting Info.: 32nd Annual Meeting of the Society for Neuroscience. Orlando, Florida, USA. November 02-07, 2002. Society for Neuroscience.

Conference; Abstract; (Meeting Abstract) Conference; (Meeting) DOCUMENT TYPE:

Conference, (Meeting Poster)

Entered STN: 25 Jun 2003 English ENTRY DATE:

LANGUAGE:

Last Updated on STN: 25 Jun 2003

interaction of the myelin-associated NogoA protein with its receptor(s). With the goal of disrupting the Nogo/Nogo receptor pathway to promote axonal regeneration, we used the MorphoSys Fab-phage display technology to identify monovalent human Fabs that would specifically recognize the rat Nogo receptor (NogoR) (Fournier et.al., Nature 409, 341-346, 2001) with high affinity. One such Fab, 2EIO, was obtained by screening the MorphoSys HuCAL Fab-1 phage The lack of axonal regeneration in mammalian CNS is at least partly due to the Nogo66 to the Nogo receptor in a scintillation proximity assay system. The 2E10 Fab also behaved as an antagonist of the Nogo-NogoR interaction in an in vitro neurite outgrowth assay using P4 rat DRGs. At concentrations of absence of CNS myelin. These results suggest that the 2E10 Fab can disrupt the NogoA/NogoR inhibitory pathway and overcome the inhibitory effects of CNS myelin on neurite outgrowth, further supporting the role that this pathway immobilized CNS myelin that resulted in an inhibition of neurite outgrowth by library on 293EBNA cells transfently transfected with full-length rat NogoR. 2E10 stains COS cells expressing NogoR and inhibits the binding of iodinated plays in inhibiting CNS axonal regeneration. The 2E10 Fab will be converted into a human-rat chimaeric antibody to facilitate future in vivo studies. apprx50%, 2E10 completely restored neurite outgrowth to levels found in the ΑB

L151 ANSWER 49 OF 50 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation

2003:269130 BIOSIS Full-text PREV200300269130 ACCESSION NUMBER: DOCUMENT NUMBER:

SIGNAL TRANSDUCTION EVENTS OF THE BETA-AMYLOID42 AND ALPHA7 NICOTINIC ACETYLCHOLINE RECEPTOR INTERACTION.

Lee, D. H. S. [Reprint Author]; Wang, H. Y. Neurobiology, Biogen Inc, Cambridge, MA, USA AUTHOR(S): CORPORATE SOURCE:

Society for Neuroscience Abstract Viewer and Itinerary Planner, (2002) Vol. 2002, pp. Abstract No.

91.11. http://sfn.scholarone.com. cd-rom. Meeting Info.: 32nd Annual Meeting of the Society for Neuroscience. Orlando, Florida, USA. November 02-07, 2002.

Society for Neuroscience.

Conference; (Meeting) DOCUMENT TYPE:

Conference, (Meeting Poster)
Conference, Abstract, (Meeting Abstract) **English** 

ENTRY DATE: LANGUAGE:

(alpha?naChR) and modulates a variety of neurophysiological processes relevant to memory and cognition such as calcium homeostasis, neurotransmitter release and choline uptake. Recent findings that the beta-amyloid42-alpha?naChR DATE: Entered STN: 11 Jun 2003
Last Updated on STN: 11 Jun 2003
beta-Amyloid42 binds to the neuronal alpha7 nicotinic acetylcholine receptor

interaction may activate ERKs and even tau protein phosphorylation further emphasize the roles of these proteins in Alzheimer's disease. To study the signal transduction mechanisms associated with the beta-amyloid42-alpha7nAChR interaction, here we report that in serum-starved SK-N-MC cells expressing alpha7nAChR, within a short time interval of even seconds of exposure to soluble, non-fibrilar beta-amyloid42, the cellular inositol tris-phosphate levels were elevated in a dose-dependent amoner. The optimal dose of 10 nM beta-amyloid42 resulted in appxx6-fold increase of cellular inositol tris-phosphates. This was accompanied by an exclusive recruitment of phospholipase C-gamma2 to the cyroplasmic signaling complex associated with alpha7nAChR as shown by co-immunoprecipitation and Western analyses. Blockade of the inositol, tris-phosphate receptor and reduction of intracellular calcium by

amyloid42. These results suggest that the early signaling event of the betaamyloid42-alpha7nAChR interaction involves the inositol phosphate pathway that will eventually lead to the activation of ERKs.

pharmacological agents significantly suppressed ERKs activation by beta-

L151 ANSWER 50 OF 50 DRUGU COPYRIGHT 2007 THE THOMSON CORP on STN ACCESSION NUMBER: 2002-42730 DRUGU P Full-text TITLE: Targeting intracellular Abeta42 for Alzheimer's disease drug Drug Discovery, Johnson and Johnson Pharmaceutical Research and Development, Welsh and McKean Roads, Spring Hous, PA 19477, U.S.A. (e-mail: mdandrea@prdus.jnj.com). Drug Dev.Res. (56, No. 2, 194-200, 2002) 1 Fig. 79 Ref. CODEN: DDREDK ISSN: 0272-4391 Spring House, Pa., Cambridge, Mass., New York, N.Y., Stratford, N.J., USA D Andrea M R, Lee D H S; Wang H Y; Nagele R G Johnson-Johnson; Biogen; Univ.New-York-City; Univ.New-Jersey-Med.+Dent. AB; LA; CT Literature discovery. English Journal CORPORATE SOURCE: AVAIL. OF DOC.: DOCUMENT TYPE: FIELD AVAIL.: FILE SEGMENT: LOCATION: LANGUAGE: SOURCE: AUTHOR:

Regardless of the intracellular effects of Abeta (either awry signal transport activities), the work summarized in this review led to the proposal of the alpha'n micotimic acetylcholine receptor as a drug target for early intervention in Alzheimer's disease. Based on an inside-out hypothesis of dens-core plaque formation, it can be predicted that blockade of exogenous Abeta42 from entering vulnerable pyramidah neurons in vivo will reduce intraneuronal Abeta42 accumulation. This will, in turn, result in prolonging neuron survival time and hence, slow down the degeneration process. (No EX).

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## Text search history

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# Text search results

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modulating functions in APP processing and AB secretion have emerged. These include the neuronal Munc-18 interacting proteins (Mints)/X11s, members of the reticulon family (RIN-3 and RIN-4/ Nogo-B), the Nogo-66 receptor (NgR), the peptidylprolyl isomerase Pinl and the Rho family GTPases and their effectors. Mints and NgR bind to APP directly, while RTN3 and Nogo-B interact with the  $\beta$ -secretase BACE1. Phosphorylated APP is a Pin1 substrate, which binds to its phosphor-Thr668-Pro motif. These interactions by and large resulted in a modulators of APP processing are well known from studies of genetic mutations (such as those found in APP and presentlins) or polymorphisms (such as the apolipoprotein E4 e-allele) that predisposes an individual to early or lateonset Alzheimer's disease. In recent years, several classes of mol. with inflammatory drugs and statins to reduce  $A\beta$  production, a feat which could also be achieved by Racl inhibition. Detailed understanding of the underlying mechanisms of action of these novel modulators of APP processing, as well as insights into the mol. neurol. basis of how  $A\beta$  impairs learning and memory, will open up multiple avenues for the therapeutic intervention of Alzheimer's reduction of  $A\beta$  generation both in vitro and in vivo. Inhibition of Rho and A review. Proteolytic processing of the amyloid precursor protein (APP) is modulated by the action of enzymes  $\alpha$ -,  $\beta$ - and  $\gamma$ -secretases, with the latter Rho-kinase (ROCK) activity may underlie the ability of non-steroidal anti-Department of Biochemistry, Yong Loo Lin School of Medicine, National University of Singapore, Singapore, two mediating the amyloidogenic production of amyloid- $\beta$  (A $\beta$ ). Cellular Journal of Neurochemistry (2007), 100(2), 314-323 CODEN: JONRA9; ISSN: 0022-3042 Blackwell Publishing Ltd. Novel modulators of amyloid-\$ precursor protein L152 ANSWER 1 OF 36 HCAPLUS COPYRIGHT 2007 ACS on STN DUPLICATE 1 Tang, Bor Luen; Liou, Yih Cherng 2007:152708 HCAPLUS Full-text Journal; General Review 146:292365 Singapore English Entered STN: 12 Feb 2007 ACCESSION NUMBER: CORPORATE SOURCE: DOCUMENT NUMBER: DOCUMENT TYPE: LANGUAGE: disease AUTHOR (S): PUBLISHER: SOURCE: TITLE: E E

14-0 (Mammalian Pathological Biochemistry) review amyloid precursor protein proteolytic processing Alzheimer CC

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(type II; novel modulators of amyloid-β precursor protein processing)

THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE THERE ARE 109 CITED REFERENCES AVAILABLE FOR FORMAT 109 REFERENCE COUNT:

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The neurotrophin receptor p75NTR: novel functions and implications for diseases of the nervous system Dechant, Georg; Barde, Yves-Alain

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to to to In	LUS COPYRIGHT 2007 ACS on STN 2007.873125 HCAPLUS FUIL-text 147.271226 RNA interference mediated inhibition of NOGO RNA interference mediated inhibition of NOGO and NOGO receptor gene expression using short interfering nucleic acid (siNA) wcSwiggen, James, Chowriza, Bharat M.; Haeberli, Peter Sima Therapeutics, Inc., USA U.S. Pat. Appl. Publ., 195pp., Contin-part of U.S. Ser. No. 826,966. CODEN: USXXCO PRICH English	APPLICATION NO. US 2007-576690 AU 1998-51819 AU 1999-19188 AU 2000-56616 US 2003-727780 US 2004-826966 WO 2004-US13456 WO 2004-US13456 DM, DZ, EC, EE, EG, ES, DM, DZ, EC, ES, EG, ES, EMD, MG, MK, MN, MX, RO, RU, SC, SD, SE, SG,
Wax-Planck-Institute of Neurob 81152, Germany Nature Neuroscience (2002), 5 (CODEN: NAMER), ISSN: 1097-6256 Nature Publishing Group Nature Publishing Group Journal, General Review English Intered STN: 29 Oct 2002 A review. Neurotrophins have long been known to p Alfferentiation of vertebrate neurons. However, t induce cell death through the p75 neurotrophin rec the tumor necrosis factor receptor superfamily. Controlling the survival and process formation of expressed during early neuronal development. In the expressed during early neuronal development. In the expressed during early neuronal development. In the expressed in various pathol. conditions, including neurodegeneration. Potentially toxic peptides, in peptide that accumulates in Alzheimer's disease, a binding protein for axonal elongation. It assocs. wi binding protein for axonal growth inhibitors, and transmission and axonal growth inhibitors, and transducing subunit of this receptor complex.  10 (Mammalian Hormones) PORWAT THERE COUNT: THERE ARE 103 CITED REFEI	HCAPLUS COPYRIGHT 2007 A 2007:873725 HCAPLUS 147.271226 RNA interference mediand NOGO receptor genusing short interfering Swiggen, James, Cho Sima Therapeutics, In U.S. Pat. Appl. Publ. Ser. No. 826,966. CODEN USXXCO Patent English T: 257	KIND DATE  A1 20001019 B2 20010208 B2 20010208 A1 20051020 A1 20051020 A2 20050212 A3 20050312 A3 20050312 A4 A1 AU, AZ, CU, CZ, CZ, CZ, CZ, CZ, CZ, CZ, CZ, CZ, CZ
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Entered STN: 10 Aug 2007
This invention relates to compds., compns., and methods useful for modulating
NGCO and/or NGCO receptor gene expression using short interfering nucleic acid
(siNA) mols by RNA interference. In particular, the instant invention
deatures small nucleic acid mols., such as short interfering nucleic acid
(siNA), short interfering RNA (siRNA), double-stranded RNA (dsRNA), micro-RNA
(miRNA), and short hairpin RNA (shRNA) mols. and methods used to modulate the

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expression of NOGO and/or NOGO receptor genes, such as NOGO-A, NOGO-B, NOGO-C, NOGO-66 receptor, NI-35, NI-220, NI-256, myelin-associated glycoprotein, tensacin-R, and NG-2. Such small nucleic acid mols. are useful in providing compns. for treatment of traits, diseases and conditions that can respond to modulation of NOGO and NOGO receptor expression in a subject for neurol. traits, diseases and conditions, such as CNS injury, cerebrovascular accident, RL: ARG (Analytical reagent use); BUU (Biological use, unclassified); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(linker, sense region of sinA is connected to antisense region via; RNA Alzheimer's disease, dementia, multiple sclerosis, chemotherapy-induced neuropathy, macular dystrophy, amyotrophic lateral sclerosis, Parkinsons disease, ataxia, Huntington,s disease and or Creutzfeldt-Jacob disease. RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (siNA comprises; RNA interference mediated inhibition of NOGO RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses) RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL BSU (Biological study, unclassified); THU (Therapeutic use); BIOL receptor gene expression using short interfering nucleic acid Post-transcriptional processing (interference; RNA interference; RNA interference) Section cross-reference(s): 1, 3, 63 NOGO receptor gene expression inhibition RNA interference; short interfering nucleic acid sequence NoGO inhibition of NOGO and NOGO receptor gene expression using short interfering nucleic acid (siNA)) NOGO receptor gene expression using short interfering nucleic acid (siNA)) NOGO receptor gene expression using short interfering nucleic acid (siNa)) (Nogo, RNA interference mediated inhibition of NOGO (RNA interference mediated inhibition of NOGO and interference mediated inhibition of NOGO and NOGO (RNA interference mediated inhibition of NOGO and and NOGO receptor gene expression using short interfering nucleic acid (81NA)) and NOGO receptor gene expression using short (Biological study); USES (Uses) (NOGO receptor; RNA interference mediated receptor; neurol disease therapy NOGO interfering nucleic acid (siNA)) Nucleotides, biological studies (Biological study); USES (Uses) 6-3 (General Biochemistry) Antisense nucleic acids Nervous system, disease 514044000, 536023100 Double stranded RNA Polynucleotides Drug screening RNA sequences receptor sina Receptors Diagnosis Druge INCL CC H Ħ H H H H

		nucleic	acid (siNA))		
T	Double stranded RNA RL: BSU (Biological	ι,	assified);	THU (Therapeutic	use); BIOL
	(Biological Study); USES (Small interfering; RN	rday); USES (USES) rfering; RNA inte	Ological Study); USES (USES) (Gmall interfering, RNA interference mediated inhibition	ated inhibition	of
	NOGO and NO using short	NOGO and NOGO receptor gene expression using short interfering nucleic acid (	ne expression ucleic acid (siNA))		
II	50-89-5, 2'-De	50-89-5, 2'-Deoxy thymidine, biological 120-73-0D. Purine, 2'-deoxy, 289-95-2.	biological studies 289-95-2, Pyrimid	studies 120-73-0, Pur Pyrimidine 289-95-2D,	Purine -2D,
	Pyrimidine, 2'	Pyrimidine, 2'-Deoxy-2'-fluoro		ıat	logical studies
	RL: ARG (Analy	Analytical reagent	); BUL	gical use, uncl	assified); ANST
		oudy); BIOL (Bio	cal study), BIOL (Biological study), USES interference mediated inhibition of NOGO a	USES (Uses)	
	NOGO recept	or gene expres	receptor gene expression using short interfering	interfering	
£	nucleic acid (siNA))	d (siNA)) nate biologic	al studies		
;	RL: ARG (Analy	rical reagent	. ARG (Analytical reagent use); BUU (Biological use, unclassified);	gical use, uncl	assified); ANST
	(Analytical st	oudy); Bloc (Bloch	(Analytical Study); Blob (Biological Study); USES (USES) (inverted decoveragic linkage: RNA interference mediated inhibition of	USES (USEB) ference mediate	d inhibition of
	NOGO and NO	and NOGO receptor gene	ne expression		
F	using short	: interfering n	using short interfering nucleic acid (siNA))	(A)	
;	RL: ARG (Analy	13181-41-8, Finospinorounicate RL: ARG (Analytical reagent 1	ISIGI-41-0, FUNSEMBLICATIONIC RL: ARG (Analytical reagent use); BUU (Biological use,	gical use, uncl	unclassified); ANST
	(Analytical st	udy); BIOL (Bio	(Analytical study); BIOL (Biological study); USES (Uses)	USES (Uses)	
	(linkage, at 3'-end	at 3'-end of an	3'-end of antisense region,	of siNA; RNA interference	terference
	mediated in	and purposeion using	2000	interfering nucleic acid	7
	(siNA))	norssandva and	Pilot	aretuid incress	5 1 2 5
H		lyceryl succinate	te		
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	and NOGO receptor	sceptor gene ex	expression using a	short	
Ē	interrering	946028-88-2P	(SINA) / 946028-89-3D	946028-90-6P	946028-91-7P
11	* 4	946028-93-9P	946028-94-0P	6028-95	96
		946028-98-4P	946028-99-5P	946029-00-1P	946029-01-2P
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and NOGO receptor gene expression using short

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946030-22-4P	946030-23-5P	946030-24-6P	946030-25-7P	946030-26-8P	
946030-27-9P	946030-28-0P	946030-29-1P	946030-30-4P	946030-31-SP	
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946030-37-1P	946030-38-2P	946030-39-3P	946030-40-6P	946030-41-7P	
946030-42-8P	946030-43-9P	946030-44-0P	946030-45-1P	946030-46-2P	
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946030-72-4P	946030-73-5P	946030-74-6P	946030-75-7P	946030-76-8P	
946030-77-9P	946030-78-0P	946030-79-1P	946030-80-4P	946030-81-5P	
946030-82-6P	946030-83-7P	946030-84-8P	946030-85-9P	946030-86-0P	
946030-87-1P	946030-88-2P	946030-89-3P	946030-90-6P	946030-91-7P	
946030-92-8P	946030-93-9P	946030-94-0P	946030-95-1P	946030-96-2P	
946030-97-3P	946030-98-4P	946030-99-5P	946031-00-1P	946031-01-2P	
946031-02-3P	946031-03-4P	946031-04-5P	946031-05-6P	946031-06-7P	
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946031-17-0P	946031-18-1P	946031-19-2P	946031-20-5P		
RL: PRP (Prope	RL: PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use);	mthetic prepare	tion); THU (The	erapeutic use);	
BIOL (Biologic	BIOL (Biological study); PREP (Preparation); USES (Uses)	(Preparation);	USES (Uses)		
(nucleotide	(nucleotide sequence of short interfering nucleic acid; RNA	ort interfering	nucleic acid;	RNA	
interferent	interference mediated inhibition of NOGO and NOGO	bition of NOGO	and NOGO		
receptor 96	receptor gene expression using short interfering nucleic acid	sing short inte	erfering nucleic	: acid	
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receptor gene expression using short interfering nucleic acid (siNa))

(unclaimed nucleotide sequence, rNA interference mediated inhibition of NOGO and NOGO receptor gene expression using short interfering nucleic acid (siNA)) 946012-03-7 946032-04-8 946032-05-9 946032-06-0 RL: PRP (Properties)

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ACCESSION NUMBER: 2007:984343 HCAPLUS Full-text
TITLE: Effecte of Nogo on the regeneration and diseases of central nervous system Yan, Ji-wen; Huang, Qi-lin

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i. 04 Sep the biol. i. of Nogo is such are an Pathol in review PROGRESS vous system) i. animal of Nogo vous system) 36 HCAP i. COUNT: 30: 53: 53: 53: 53: 53: 53: 53: 53: 53: 53	Xingiao Hospital, Third Military Medical Chongqing, 400037, Peop. Rep. China Chongqing, 400037, Peop. Rep. China Chongqing Yixue (2007), 36(13), 1320-1322 Chongqing Yixue Bianjibu Guranl; General Review Chinese Chongqing Yixue Bianjibu Chemial Canceral Review Chinese Chongqing Yixue Bianjibu Chemial Canceral Review Calon of central nervous system reviewed with 31 refs.  2007  LUSS COPYRIGHT 2007 ACS on STN 2006:515914 HCAPLUS Full-text Mochemistry)  AD ALS  muther regeneration and diseases of central nervous system AD ALS  muthods of cell therapy, neurogenesis and oligodendrogenesis Full-text Michal; Butowsky, Ole Sisenbach-Schwartz, Michal; Butowsky, Ole Yeal Research and Development Co. Ltd., I CODEN: PIXXD2  AZ 20066601 WO 2005-LI11270  AZ 2006601 WO 2005-LI11270  AZ 20060501 WO 2005-LI11270  AZ 2005-ZE ZE Z	iospital, Third Milica (1, 400037, Peop. Rep. (1, 400037, Peop. Rep. (1, 400037, Peop. Rep. (2, 400037, Peop. Rep. (2, 400037, Peop. Rep. (2, 400037, Peop. Rep. (2, 400037, Peop. Rep. (3, 418, 12003 ACS on STR (4, 31 refs. (3, 418, 12003 ACS on STR (4, 41, 12003 ACS on STR (4, 1203	Third Military Medical University, 2007), 36(13), 1320-1322 SN: 1671-8348 ianjibu Review  of Nogo protein and its receptors, on of central nervous system (CNS) sease (AD) and amyotrophic lateraliance (AD) and a	Military M Rep. Chin 36(13), 133 36(13), 133 36(13), 133 36(13), 133 36(13), 133 6 Central ner AD) and amy ill_text neurogene neurogene Ron, Noga Ron, Ron Ron Ron, Ron	china and its receptors, in and its receptors, I nervous system (CNS) d amyotrophic lateralis in and its receptors, I nervous system (CNS) d amyotrophic lateralis it	central cand dits recepous system contral contra	niversity  receptors clateral  i, Ziv,  rael  DATE  20051129  KW, KW, KR,  SD, SE  102, VC  11, HU, IE	Military Medical University, Sep. China Safia), 1320-1322  771-8348  90 protein and its receptors, and central nervous system (CNS) and (AD) and amyotrophic lateralizing system  9 on STN 1011-text 7, neurogenesis and 11 Ron, Noga 12 Ron, Noga 13 Ron, Noga 14 Ron, Noga 15 Ron, Noga 16 BE, ES, EI, GB, GD, 17 TZ, UA, MG, NG, KP, KR, MA, MD, MG, MK, MN, MW, MW, MN, MM, MM, MD, MG, MC, SC, SD, SE, TT, TZ, UA, UG, US, UZ, VC, ES, FI, FR, GB, GR, HU, IE, MA, MD, MG, MT, MM, MM, MM, MM, MM, MM, MM, MM, MM	
I, CM, S, MW, D, RU,	GA, GN, GO, MZ, NA, SD, TJ, TM	SL, SL	ML, MR, SZ, TZ,	GC, Z	ZM, TD,	2.5	AZ, E		
PRIORITY APPIN. INFO:  ED Entered STN: 02 Jun 2006  AB A method is provided for inducing and enhancing neurogenesis oligodendrogenesis from endogenous as well as from exogenous stem cells, which comprises administering to an individual in	inducing ndogenous es admini	us 2 and enhar as well stering t	US 2004-631163P snhancing neurog well as from exc	631163 g neur from en	P ogenes xogeno vidual	is and/orusly admi	20041129 and/or y adminis	· ω	
neuroprotective agent such as a nervous system (NS)-specific antigen,	has a ne	rvous	system	(NS)	specif	ic an	tigen	æ	

The method peptide derived therefrom, T cells activated therewith, poly-YE, microglia (Nogo, nervous system antigen; stimulating neurogenesis and oligodendrogenesis from stem cells using neuroprotective agents such as nervous system-specific antigens and poly-YE and activated T cells or activated by interferon- $\gamma$  and/or IL-4, and combinations thereof. The methincludes stem cell therapy in combination with the neuroprotective agent. RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL Parkinson's disease Peripheral nervous system, disease Central nervous system, disease (Biological study); USES (Uses) Mental and behavioral disorders Section cross-reference(s): 15 Central nervous system agents Hematopoietic precursor cell Cognitive disorders Combination chemotherapy Anti-Alzheimer's agents Antiglaucoma agents Antiparkinsonian agents Antigen-presenting cell Nervous system agents Alzheimer's disease Cognition enhancers 1-11 (Pharmacology) Cockayne's syndrome T cell (lymphocyte) Glaucoma (disease) Multiple sclerosis Sjogren syndrome Anticonvulsants Cell activation Drug dependence Drug withdrawal Oligodendrocyte Antipaychotics Schizophrenia Neurogenesis microglia) Receptors Anxiolytics ICM A61K Stem cell Proteins Epilepsy Anxiety Human ដូខ Ħ H

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(unclaimed nucleotide sequence; methods of cell therapy,

RL: PRP (Properties)

The domain organization and function Four human proteins (termed INSP168, INSP168-SV1, INSP149, and INSP169) identified as leucine-rich repeat (LRR) motif containing proteins with similarity to PAL (photoreceptor-associated leucine-rich repeat protein) and 20051115 <--A 20041115 <--20051115 <--Michalovich, David; White, Simon John; Yorke, Melanie; GR, HU, IE, TR, BF, BJ, TG, BW, GH, AM, AZ, BY, Leucine-rich repeat (LRR) motif-containing proteins GR, HU, IE, SK, TR, AL, 20051115 AX XX X 888050-01-9 SD, DATE SC, US, Š RL: PRP (Properties)
(unclaimed sequence; methods of cell therapy, neurogenesis GB, (SI, WO 2005-GB4390 GB, SK, TD, RG, ξ and their use in disease therapy and SI, SN, ZM, AU 2005-303536 CA 2005-2586486 EP 2005-803576 DK, EE, ES, FI, FR, NL, PL, PT, RO, SE, BW, KG, KG, UA, 888050-00-8 888050-05-3 APPLICATION NO. GB 2004-25197 WO 2005-GB4390 FI, SE, NE, UG, 2006:470210 HCAPLUS Full-text PT, TZ, Ä, Ď, on STN ES, RO,/ MR, TZ, BG, # H H Maundrell, Kinsey Ares Trading S.A., Switz. PCT Int. Appl., 168 pp. CODEN: PIXXD2 HCAPLUS COPYRIGHT 2007 ACS BE, PT, ML, SZ, IS, LY, PH, TR, 888049-97-6 888049-98-7 888049-99-8 888050-02-0 888050-03-1 888050-04-2 neurogenesis and oligodendrogenesis) 385 CZ, DE, I LV, MC, I 20060518 20060518 8 5 8 B 20060518 20070808 GA, A E AU, NZ, 144:482222 5 B English AT, CZ, SY, CY, CY, LV, AZ, TJ, E 13, and oligodendrogenesis) Patent Entered STN: 19 May 2006 KIND A A A 3 CG, Ħ, R: AT, BE, BG, IS, IT, LI, BA, HR, MK, FAMILY ACC. NUM. COUNT: PATENT INFORMATION: PRIORITY APPLN. INFO.: L152 ANSWER 6 OF 36 ACCESSION NUMBER: PATENT ASSIGNEE (S): WO 2006051333 2005303536 WO 2006051333 AU 20053035. CA 2586486 EP 1814903 DOCUMENT NUMBER: PATENT NO. DOCUMENT TYPE: RW: INVENTOR(S): LANGUAGE: H S E

to a Nogo receptor homolog are provided. The domain organization and function of these proteins allows for the design of screening methods capable of identifying compds. that are effective in the treatment and/or diagnosis of disease. INSPIGE has the capacity to stimulate intracellular signaling by inducing Stat-2 nuclear translocation in the human astroglioma cell line U373, suggesting a neuroprotective role. These proteins and nucleic acid sequences

oligodendrogenesis from stem cells using neuroprotective agents such as nervous system-specific antigens and poly-YE and activated T cells or

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL  $(\beta$ -, nervous system antigen, stimulating neurogenesis and

(Biological study); USES (Uses)

Amyloid

H

888049-92-1 888049-93-2 888049-94-3 888049-95-4 888049-96-5

microglia)

H

p.47

(stimulating neurogenesis and oligodendrogenesis from stem cells using neuroprotective agents such as nervous system-specific antigens and  $poly\-VE$  and activated T cells or microglia)

encoding genes are of use in the diagnosis, prevention, and

- 3.3 (Biochemical Genetics) ပ္ပ
- Section cross-reference(s): 1, 6, 13, 63
- leucine rich repeat protein cDNA sequence human, neuroprotection leucine rich repeat protein, disease therapy diagnosis leucine rich ST
  - repeat protein
    - (disease) AIDS H

leucine-rich repeat (LRR) motif-containing proteins and their use disease therapy and diagnosis) (AIDS dementia complex, diagnosis and treatment of;

Mental and behavioral disorders

H

(AIDS dementia, diagnosis and treatment of; leucine-rich repeat (LRR) motif-containing proteins and their use in disease

therapy and diagnosis) Brain, disease

H

Prion diseases (Creutzfeldt-Jakob, diagnosis and treatment of; leucine-rich repeat (LRR) motif-containing proteins and their use in disease

H

therapy and diagnosis) Nervous system, disease

(Huntington's chorea, diagnosis and treatment of; leucine-rich repeat (LRR) motif-containing proteins and their use in disease therapy and diagnosis)

Protein motifs 11

(LRR (leucine-rich repeat); leucine-rich repeat (LRR) motif-containing proteins and their use in disease therapy and diagnosis)

(Pick's disease, diagnosis and treatment of; leucine-rich repeat (LRR) motif-containing proteins and their use in disease therapy and diagnosis) Mental and behavioral disorders

11

Nervous system, disease
(amyotrophic lateral sclerosis, diagnosis and treatment of;
leucine-rich repeat (LRR) motif-containing proteins and their use in
disease therapy and diagnosis) 11

repeat (LRR) motif-containing proteins and their use in disease (angioid streak, diagnosis and treatment of; leucine-rich Eye, disease

Ţ

therapy and diagnosis) Injury

H

(cerebral, diagnosis and treatment of; leucine-rich repeat (LRR) motif-containing proteins and their use in disease therapy and diagnosis) Brain, disease Ħ

(cerebrovascular, diagnosis and treatment of; leucine-rich repeat (LRR) motif-containing proteins and their use in disease therapy and diagnosis) Eye, disease

H

H

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(LRR) motif-containing proteins and their use in disease therapy choroid, diagnosis and treatment of; leucine-rich repeat and diagnosis)

in leucine-rich repeat (LRR) motif-containing proteins and their use choroidal thrombosis, diagnosis and treatment of; disease therapy and diagnosis) (choroidal vascular insufficiency, diagnosis and treatment of; leucine-rich repeat (LRR) motif-containing proteins and their use in

disease therapy and diagnosis) Brain, disease H

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ij (corticobasal degeneration, diagnosis and treatment of, leucine-rich repeat (LRR) motif-containing proteins and their use disease therapy and diagnosis)

Eye, disease

H

(cystoid macular edema, diagnosis and treatment of; leucine-rich repeat (LRR) motif-containing proteins and their use disease therapy and diagnosis)

(degeneration, diagnosis and treatment of; leucine-rich repeat (LRR) motif-containing proteins and their use in disease therapy and diagnosis) Nervous system, disease Ħ

(dementia, diagnosis and treatment of, leucine-rich repeat (LRR) motif-containing proteins and their use in disease therapy Mental and behavioral disorders and diagnosis) Ħ

(dementia, frontotemporal, diagnosis and treatment of; leucine-rich repeat (LRR) motif-containing proteins and their use disease therapy and diagnosis) Mental and behavioral disorders

II

H

Ţ

(dementia, vascular, diagnosis and treatment of; leucine-rich repeat (LRR) motif-containing proteins and their use in disease Mental and behavioral disorders therapy and diagnosis)

(detection of; leucine-rich repeat (LRR) motif-containing proteins and their use in disease therapy and diagnosis) Mutation

H

leucine-rich repeat (LRR) motif-containing proteins and their use Bye, disease (diabetic macular edema, diagnosis and treatment of; disease therapy and diagnosis) Eye, disease

leucine-rich repeat (LRR) motif-containing proteins and their use (diabetic retinopathy, diagnosis and treatment of; disease therapy and diagnosis) H

Central nervous system, disease Alzheimer's disease H

Glaucoma (disease)

Eye, neoplasm

Peripheral nervous system, disease Parkinson's disease

Wernicke-Korsakoff syndrome

(diagnosis and treatment of, leucine-rich repeat (LRR) motif-containing proteins and their use in disease therapy and

diagnosis)

II

Mental and behavioral disorders (diffuse Lewy body disease, diagnosis and treatment of; leucine-rich repeat (LRR) motif-containing proteins and their use disease therapy and diagnosis) Ħ

(gene knock-out, leucine-rich repeat (LRR) motif-containing proteins and their use in disease therapy and diagnosis) treatment of; (hereditary optic atrophy, diagnosis and Gene targeting Eye, disease H

leucine-rich repeat (LRR) motif-containing proteins and their use disease therapy and diagnosis) Brain, disease H

Spinal cord, disease (injury, diagnosis and treatment of; leucine-rich repeat (LRR) motif-containing proteins and their use in disease therapy

and diagnosis)

(ischemia, diagnosis and treatment of; leucine-rich repeat (LRR) motif-containing proteins and their use in disease therapy dinease 11

Cardiovascular agents and diagnosis)

II

Drug screening

Molecular cloning

Nervous system agents Protein sequences

Test kits

Vaccines

cDNA sequences

(leucine-rich repeat (LRR) motif-containing proteins and their use disease therapy and diagnosis)

Primers (nucleic acid) H

(Diagnostic use); ANST (Analytical RL: ARG (Analytical reagent use); DGN study); BIOL (Biological study); USES Probes (nucleic acid)

(leucine-rich repeat (LRR) motif-containing proteins and their use in (Daes)

disease therapy and diagnosis)

TI

Antibodies and Immunoglobulins RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(leucine-rich repeat (LRR) motif-containing proteins and their use in

disease therapy and diagnosis)
Fusion proteins (chimeric proteins)
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)

H

(leucine-rich repeat (LRR) motif-containing proteins and their use in

disease therapy and diagnosis) Proteins

Ħ

RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); DGN (Diagnostic use); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(leucine-rich repeat, INSP149; leucine-rich repeat (LRR) motif-containing proteins and their use in disease therapy and diagnosis)

RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); DGN (Disgnostic use); THU (Therapeutic use); BIOL (Biological study); PREP Proteins

H

(Preparation); USES (Uses)

motif-containing proteins and their use in disease therapy and (leucine-rich repeat, INSP168-SV1; leucine-rich repeat (LRR)

Proteins 11

RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); DGN (Diagnostic use); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (leucine-rich repeat, INSP168; leucine-rich repeat (LRR) motif-containing proteins and their use in disease therapy and diagnosis)

RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); DGN (Diagnostic use); THU (Therapeutic use); BIOL (Biological study); PREP Proteine

H

leucine-rich repeat, INSP169; leucine-rich repeat (LRR) motif-containing proteins and their use in disease therapy and diagnosis) (Preparation); USES (Uses)

(macula, senile degeneration, diagnosis and treatment of; Eye, disease

H

leucine-rich repeat (LRR) motif-containing proteins and their use in disease therapy and diagnosis)

## 0/553,669

use in (mol., leucine-rich repeat (LRR) motif-containing proteins and their disease therapy and diagnosis) Angiogenesis H 片

(neovascularization, ocular, diagnosis and treatment of; leucine-rich repeat (LRR) motif-containing proteins and their disease therapy and diagnosis)

Ischemia

H

H

(LRR) motif-containing proteins and their use in disease therapy and diagnosis) (neuronal, diagnosis and treatment of; leucine-rich repeat Nerve, disease

(neuropathy, diagnosis and treatment of, leucine-rich repeat (LRR) motif-containing proteins and their use in disease therapy

Cytoprotective agents and diagnosis) H

r.

(neuroprotective agents, leucine-rich repeat (LRR) motif-containing proteins and their use in disease therapy and diagnosis) Nervous system agents

Artery, disease Vein, disease H

(occlusion, retinal, diagnosis and treatment of; leucine-rich repeat (LRR) motif-containing proteins and their use in disease therapy and diagnosis)

Eye, disease

(ophthalmitis, diagnosis and treatment of, leucine-rich repeat (LRR) motif-containing proteins and their use in disease

Inflammation ä

therapy and diagnosis)

Nerve, disease

H

(optic neuropathy, diagnosis and treatment of; leucine-rich repeat (LRR) motif-containing proteins and their use in disease therapy and diagnosis)

Paralysis Ħ

(paraplegia, diagnosis and  $t_{\it restment}$  of, leucine-rich repeat (LRR) motif-containing proteins and their use in disease therapy and diagnosis)

Eye, disease

H

H

(periretinal proliferation, diagnosis and treatment of; leucine-rich repeat (LRR) motif-containing proteins and their use in (pigment epithelium, diagnosis and treatment of; leucine-rich repeat (LRR) motif-containing proteins and their use in disease disease therapy and diagnosis) Eye, disease

therapy and diagnosis) Paralysis

H

(pseudobulbar, diagnosis and treatment of; leucine-rich repeat (LRR) motif-containing proteins and their use in disease therapy and diagnosis)

therapy and diagnosis) Eye, disease

H

repeat (LRR)

Eye, neoplasm

H

(retina, degeneration, diagnosis and treatment of; leucine-rich repeat (LRR) motif-containing proteins and their use in disease therapy and diagnosis)

a, diagnosis and treatment of; leucine-rich motif-containing proteins and their use in disease

(pseudoglioma, diagnosis and treatment

Eye, disease

H

(retina, detachment, diagnosis and treatment of; leucine-rich repeat (LRR) motif-containing proteins and their use in disease

II

H

H

H

H

therapy and diagnosis)  Bye, disease (retinal ischemia, diagnosis and treatment of; leucine-rich repeat (LRR) motif-containing proteins and their use in disease therapy and diagnosis
Ischemia (retinal, diagnosis and treatment of; leucine-rich repeat (LRR) motif-containing proteins and their use in disease therapy
and dagmosts/ Bye, disease Inflammation
(retinitis pigmentosa, diagnosis and treatment of; leuchne-rich repeat (LRR) motif-containing proteins and their use in disease therapy and diagnosis)
Eye, necoplasm (retinoblastoma, diagnosis and treatment of; leucine-rich
repeat (LRR) motif-containing proteins and their use in disease therapy and diagnosis)
ege, wischause (retinopathy, diagnosis and treatment of; leucine-rich repeat
iritis, diagnosis and treatment of; leucine
repeat (LRR) motif-containing proteins and their use in disease therapy and diagnosis)
Bye, disease
(mickle cell retinopathy, diagnomim and treatment of; leucine-rich repeat (LRR) motif-containing proteins and their use in
disease therapy and diagnosis)
(spinal cord, diagnosis and treatment of; leucine-rich repeat
Brain, disease (streatment of; leucine-rich repeat
(LRR) motif-containing proteins and their use in disease therapy and diagnosis)
Brain, disease
(thalamic degeneration, diagnosis and treatment of; leucine-rich repeat (LRR) motif-containing proteins and their use in
disease therapy and diagnosis) Animals
(transgenic or knockout, leucine-rich repeat (LRR) motif-containing proteins and their use in disease therapy and diagnosis)
Brain, disease (trauma diamont and treatment of lenning-rich reneat
ntaining proteins a
and diagnosis) Eye, disease
Inflammation (uveitis, diagnosis and treatment of: leucine-rich repeat
ntaining proteins and their use in di
(with dementia, diagnosis and treatment of; leucine-rich repeat (LRR) motif-containing proteins and their use in disease
887379-78-4P, Leucine-rich repeat (human) 8

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	10/203,009 887379-84-2P 887379-86-4P 887379-88-6P	ō.
	-2P 887379-94-4P 887379-96-6P 887379-98-8P 887380-001P 887380-04-3P 887380-06-5P 887380-08-7P  Biosynthetic preparation); BSU (Biological study, unclassifite  moveric use) "THI (Therapeutic use); RIOI (Riological study);	.9P :d); prep
TI	(Preparation); USES (Uses) (amino acid sequence; leucine-rich repeat (LRR) motif-containing and their use in disease therapy and diagnosis) (807379-65-9P 807379-67-1P 807379-69-3P 807379-71-P 807379-78 807379-75-P 807379-79-P 807379-79-P 807379-79-P 807379-79-P 807379-79-P 807379-79-P 807379-9P 807379-9P 807379-9P 807379-9P 807379-9P 807379-9P 807380-0P-P 807380-0	proteins 3-9P 33-1P 33-2P 33-2P
H	DGN (Diagnostic use); THU (Therapeutic use); BIOL (Biological study) (Preparation); USES (Uses) (Incleotide sequence; leucine-rich repeat (LRR) motif-containing and their use in disease theirapy and diagnosis) 887380-10-1 887380-11-2 887380-12-3 887380-13-4 887380-14-5 887380-15-6 887380-16-7 887380-18-9 887380-23-6 887380-23-6 887380-23-6	; PREP proteins
H	RL: PRP (Properties)  (unclaimed nucleotide sequence; leucine-rich repeat (LRR) motif proteins and their use in disease therapy and diagnosis) 887380-2-0 887380-28-1 887380-29-2 887380-30-5 RL: PRP (Properties)  (unclaimed protein sequence; leucine-rich repeat (LRR) motif-coproteins and their use in disease therapy and diagnosis)	-containing ntàining
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PATE	PATENT INFORMATION: PATENT NO. KIND DATE APPLICATION NO. DATE	
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	LT, LU, LV, M CI, CM, GA, G CI, CM, GA, G	
	p.54	

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KG,	1006058223	789070	R: AT, BE, BG, C	IS	BA	CN 101014245	PPLN.	
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ฮ	S	ធ				០	PRIORITY APPLN. INFO.:	

## Entered STN: 17 Feb 2006 A ED

The invention provides methods of treating diseases, disorders, injuries, or conditions involving modulating neurite outgrowth and/or survival, including central nervous system (CNS) disorders, stroke, or spinal injury, by administration of a TAJ antagonist. Furified mouse TAJ protein fused to the hinge and Fr region of human 1gG1 was shown to bind the Nogo receptor 1 (NgR1) and LNGO-1 protein. Expression studies demonstrated that TAJ protein is expressed in a wide range of tissues within the mouse brain, with stronger expression during embryogenesis than during adulthood. OMGP (oligodendrocyte myelin all glycoptocial) treatment of COS cells expression of TAJ, LNGO-1 and NgR1 resulted in increased RhoA activation, suggesting that expression of TAJ. LINGO-1 and NgR1 was sufficient to reconstitute a functional MAIF receptor capable of downstream signaling. Lastly, the effect of TAJ upon upon neurite outgrowth was demonstrated in rodent models. This invention is intended to be applied towards treatment of human central nervous system disorders or

## 1-11 (Pharmacology) ដូ

- Section cross-reference(s): 3, 6, 14
  Inuman tumor necrosts factor receptor TAJ sequence; TNFR TAJ assocn NgRl
  LINGOl signaling RhoA activation; TAJ signaling neurite outgrowth rodent
  model human disease therapy ST

### Myelin Ħ

- RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (-modulated neurite outgrowth; modulation of tumor necrosis factor
  - receptor TAJ signaling for control of neurite outgrowth in treatment of CNS disorders)

### CNS disorders) Proteins II

RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(Muntington's chorea, modulation of tumor necrosis factor receptor TAJ signaling for control of neurite outgrowth in treatment of

Nervous system, disease

ı,

(LINGO-1; modulation of tumor necrosis factor receptor TAJ signaling for control of neurite outgrowth in treatment of CNS

## Receptors

H

RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study), USES (Uses)

(Nogo, NgR1; modulation of tumor necrosis factor seceptor TAJ signaling for control of neurite outgrowth in treatment of CNS disorders)

H

RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses) Glycoproteins

necrosis factor receptor TAJ signaling for control of neurite outgrowth (OMGP (oligodendrocyte myelin glycoprotein); modulation of tumor in treatment of CNS disorders)

Molecular association H p.55

TAJ association with NgR1 or LINGO-1; modulation of tumor necrosis factor receptor TAJ signaling for control of neurite outgrowth in treatment of CNS disorders)

H

(TAJ expression in, modulation of tumor necrosis factor receptor TAJ signaling for control of neurite outgrowth in treatment of CNS disorders)

# Ħ

Fusion proteins (chimeric proteins) RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(Thy fusion with Fc IgG1; modulation of tumor necrosis factor receptor TAJ signaling for control of neurite outgrowth in treatment of CNS disorders)

# Immunoglobulin receptors

H

RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (TAJ fusion with IgG1; modulation of tumor necrosis factor receptor TAJ

signaling for control of neurite outgrowth in treatment of

## CNS disorders)

IJ

Tumor necrosis factor receptors RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(ThJ, modulation of tumor necrosis factor receptor TAJ signaling for control of neurite outgrowth in treatment of CNS disorders)

Nerrous system, disease (amyotrophic lateral sclerosis; modulation of tumor necrosis factor receptor TAJ signaling for control of neurite outgrowth in treatment of CNS disorders)

II

(antibody association with TAJ epitope, modulation of tumor necrosis factor receptor TAJ signaling for control of neurite outgrowth in treatment of CNS disorders) Epitopes H

## Antibodies and Immunoglobulins H

RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL

(Biological study); USES (Uses)

(antibody association with TAJ epitope; modulation of tumor necrosis factor receptor TAJ signaling for control of neurite outgrowth in treatment of CNS disorders)

## Injury Ħ

signaling for (axon, modulation of tumor necrosis factor receptor TAJ sig control of neurite outgrowth in treatment of CNS disorders)

(central nervous system, transection; modulation of tumor necrosis factor receptor TAJ signaling for control of neurite outgrowth in treatment of CNS disorders) Injury

H

H

cerebellar granule; modulation of tumor necrosis factor receptor TAJ signaling for control of neurite outgrowth in treatment of Neuron

## CNS disorders)

H

Antibodies and Immunoglobulins RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL

(Biological study); USES (Uses)

(chimeric, antibody association with TAJ epitope; modulation of tumor necrosis factor receptor TAJ signaling for control of neurite outgrowth in treatment of CNS disorders)

## Nerve, disease

H

(degeneration, CNS; modulation of tumor necrosis factor receptor TAJ signaling for control of neurite outgrowth in treatment of

(diabetic neuropathy; modulation of tumor necrosis factor receptor TAJ signaling for control of neurite outgrowth in treatment of CNS disorders) H

H

(disease, injury; modulation of tumor necrosis factor receptor TAJ signaling for control of neurite outgrowth in treatment of

CNS disorders) Gene, animal 11

RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(encoding TAJ; modulation of tumor necrosis factor receptor TAJ signaling for control of neurite outgrowth in treatment of

CNS disorders)

Gene targeting H

(gene knock-out, of TAJ gene, in mice, modulation of tumor necrosi factor receptor TAJ signaling for control of neurite outgrowth in treatment of CNS disorders)

Antibodies and Immunoglobulins H

RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(humanized, antibody association with TAJ epitope; modulation of tumor necrosis factor receptor TAJ signaling for control of neurite outgrowth in treatment of CNS disorders)

Central nervous system, disease H

(injury, transection, modulation of tumor necrosis factor receptor TAJ signaling for control of neurite outgrowth in treatment of

CNS disorders)

(injury; modulation of tumor necrosis factor receptor TAJ signaling for control of neurite outgrowth in treatment of CNS disorders) Post-transcriptional processing Spinal cord, disease 11 II

(interference, modulation of tumor necrosis factor receptor signaling for control of neurite outgrowth in treatment of

Ę

CNS disorders)

Alzheimer's disease H

Antibiotics Analgesics

Astrocyte

Central nervous system Drug screening

Genetic engineering

Molecular cloning

Multiple sclerosis Oligodendrocyte

Signal transduction, biological Parkinson's disease

(modulation of tumor necrosis factor receptor TAJ signaling for control of neurite outgrowth in treatment of CNS disorders)

Antisense nucleic acids

H

Corticosteroids, biological studies

Promoter (genetic element) Rho protein (G protein)

RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(modulation of tumor necrosis factor receptor TAJ signaling for control of neurite outgrowth in treatment of CNS disorders)

Molecular association H

10/553,669

(monoclonal antibody association with TAJ epitope, modulation of tumor necrosis factor receptor TAJ signaling for control of neurite outgrowth in treatment of CNS disorders)
Antibodies and Immunoglobulins
RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL

H

(Biological study); USES (Uses)

(monoclonal, monoclonal antibody association with TAJ epitope; modulation of tumor necrosis factor receptor TAJ signaling for control of neurite outgrowth in treatment of CNS disorders)

receptor TAJ (optic nerve injury; modulation of tumor necrosis factor re signaling for control of neurite outgrowth in treatment of CNS disorders)

H

Injury

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TAJ factor receptor in treatment of (optic nerve; modulation of tumor necrosis signaling for control of neurite outgrowth : CNS disorders)

necrosis

Ħ

factor receptor TAJ (spinal cord; modulation of tumor necrosis factor receptor signaling for control of neurite outgrowth in treatment of CNS disorders) Injury

Ganglion

H

(spinal; modulation of tumor necrosis factor receptor TAJ signaling for control of neurite outgrowth in treatment of CNS disorders)

H

Brain, disease (stroke; modulation of tumor necrosis factor receptor TAJ signaling for control of neurite outgrowth in treatment of CNS disorders)

Mus musculus

H

(transgenic, modulation of tumor necrosis factor receptor TAJ signaling for control of neurite outgrowth in treatment of CNS disorders)

H

H

(tumor necrosis factor receptor TAJ, from human, modulation of tumor necrosis factor receptor TAJ signaling for control of neurite outgrowth in treatment of CNS disorders) Brain, disease (trauma; modulation of tumor necrosis factor receptor ThJ signaling for control of neurite outgrowth in treatment of CNS disorders) Protein sequences

(Therapeutic use); BIOL (Biological study); USES (Uses)
(amino acid sequence; modulation of tumor necrosis factor receptor TAJ (Properties); THU unclassified); PRP RL: BSU (Biological study, 876331-83-8 H

signaling for control of neurite outgrowth in treatment of CNS disorders) 291801-31-5, GENBANK BAB03269 386583-24-0, GenBank AF247000 487736-40-3, GenBank AAK28397 GENBANK AAH47321 623669-56-7, 280545-70-2, GENBANK AB040434 386583-22-8, GenBank AF246999 480697-79-8, GenBank AAK28396 497742-55-9, GENBANK BC047321 H

RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)

 
 (modulation of tumor necrosis factor receptor TaJ signaling for control

 of neurite outgrowth in treatment of CNS disorders

 3332-29-5
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 876332-40-1
 876332-42-2
 876332-29-5 H

876332-38-6 876332-43-3

(unclaimed nucleotide sequence; modulation of tumor necrosis factor receptor TAJ signaling for control of neurite outgrowth in treatment of CNS disorders) RL: PRP (Properties)

876332-37-5 876332-35-3 876332-33-1 H

RL: PRP (Properties)

(unclaimed sequence; modulation of tumor necrosis factor receptor TAJ Monoclonal antibodies to human protein NOGO for the Ellis, Jonathan Henry; Hamblin, Paul Andrew; Lewis, 122024-47-9 130838-28-7 160918-30-9 244250-73-5 278595-84-9 455901-21-0 455901-22-1 455901-23-2 (unclaimed protein sequence; modulation of tumor necrosis factor treatment and/or prophylaxis of neurological receptor TAJ signaling for control of neurite outgrowth in treatment of CNS disorders) signaling for control of neurite outgrowth in treatment of CNS disorders) Alan Peter; Wilson, Paul Alexander 2006:120405 HCAPLUS Full-text L152 ANSWER 8 OF 36 HCAPLUS COPYRIGHT 2007 ACS on STN 144:190624 diseases ž RL: PRP (Properties) PATENT ASSIGNEE (S): ACCESSION NUMBER: DOCUMENT NUMBER: INVENTOR (S): H

U.S. Pat. Appl. Publ., 95 pp., Cont.-in-part of Appl. No. PCT/GB04/05325. CODEN: USXXCO English Patent FAMILY ACC. NUM. COUNT: DOCUMENT TYPE: LANGUAGE: SOURCE:

PATENT INFORMATION:

20050706 <--20031222 <--SY, ZW, ZW, DK, 8 Ĭ, SL, ZM, DE, GW, ð NA, DATE S # 8 BY, KRP, MX, YU, YU, GN, SECTION SECTIO ă US 2005-177648 WO 2004-GB5325 APPLICATION NO. SD, CT, CT, ∄ , MK, SC, UZ, UZ, IT, RU, US, SD, AT, IS, Ã, ð, G H H A G C 20060209 AZ, DK, 1005000 20050818 MZ, MZ, DATE LV, PL, RW, GR, ÅÜ, AT, 3 % T.3.68 F.5 KIND EE, ES, F RO, SE, S MR, NE, S PRIORITY APPLN. INFO.: AE, AG, CN, CO, GE, GH, LK, LR, NO, NZ, TJ, TM, BW, GH, AZ, BY, US 2006029603 WO 2005061544 WO 2005061544 PATENT NO. RM:

The present invention relates to humanized antibodies to human protein NOGO, pharmaceutical formulations containing them and to the use of such antibodies in the treatment and/or prophylaxis of neurol. diseases/disorders. Provided are sequences for monoclonal humanized NOGO antibodies. A2 20041220 <--GB 2003-29684 GB 2003-29711 WO 2004-GB5325 09 Feb 2006 Entered STN: AB AB

15-3 (Immunochemistry) 424143100; 530388220 INCL ដ

Section cross-reference(s): 3 Animal cell line H

H

(373, expression host, monoclonal antibodies to human protein NOGO treatment and/or prophylaxis of neurol. diseases) Animal cell line

for

(CHO, expression host; monoclonal antibodies to human protein NOGO for

treatment and/or prophylaxis of neurol. diseases)

(COS, expression host; monoclonal antibodies to human protein NOGO for treatment and/or prophylaxis of neurol. diseases) Animal cell line H

for (Huntington's chorea; monoclonal antibodies to human protein NOGO treatment and/or prophylaxis of neurol. diseases) Nervous system, disease

(NSO, expression host; monoclonal antibodies to human protein NOGO for treatment and/or prophylaxis of neurol. diseases) Animal cell line

H

H

(Nogo A, domain Nogo-A56, antibodies to; monoclonal antibodies to human protein NOGO for treatment and/or prophylaxis of neurol. unclassified); BIOL (Biological study) RL: BSU (Biological study, Proteins H

RL: BSU (Biological study, unclassified); BIOL (Biological study) (Nogo, antagonists; monoclonal antibodies to human protein NOGO for treatment and/or prophylaxis of diseases) neurol. Proteins H

diseases)

Animal cell line £1.

(Sp2/0, expression host; monoclonal antibodies to human protein NOGO for treatment and/or prophylaxis of neurol. diseases) Antibodies and Immunoglobulins

H

RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

for (chimeric; monoclonal antibodies to human protein NOGO treatment and/or prophylaxis of neurol. diseases)

(contacting with antibody to promote sprouting; monoclonal antibodies to human protein NOGO for treatment and/or prophylaxis of Axon 片

neurol. diseases) Nerve, disease Ħ

H

(degeneration, inhibiting; monoclonal antibodies to human protein NOGO for treatment and/or prophylaxis of neurol. diseases)
Mental and behavioral disorders

(dementia, Fronto-temporal, tauopathies; monoclonal antibodies to human protein NOGO for treatment and/or prophylaxis of neurol. diseases)

Fibroblast

H

(expression host; monoclonal antibodies to human protein NOGO for treatment and/or prophylaxis of neurol. diseases) Antibodies and Immunoglobulins

RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP Ħ

(Preparation); USES (Uses)

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(fragments; monoclonal antibodies to human protein NOGO for treatment and/or prophylaxis of neurol. diseases) Antibodies and Immunoglobulins H

RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP

USES (Uses) (Preparation);

(heavy chain; monoclonal antibodies to human protein NOGO for reatment and/or prophylaxis of neurol. diseases)

RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP Antibodies and Immunoglobulins (Preparation); USES (Uses) H

(humanized; monoclonal antibodies to human protein NOGO for

treatment and/or prophylaxis of neurol. diseases)

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(outgrowth, sprouting promotion, monoclonal antibodies to human protein NOGO for treatment and/or prophylaxis of neurol. diseases) RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP Antibodies and Immunoglobulins RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (site-directed, substitution; monoclonal antibodies to human protein NOGO for treatment and/or prophylaxis of neurol. diseases) (mammalian, expression host; monoclonal antibodies to human protein NOGO for treatment and/or prophylaxis of neurol. diseases)
Alzheimer's disease (injections, i.v., monoclonal antibodies to human protein NOGO for treatment and/or prophylaxis of neurol. diseases) (neutralizing; monoclonal antibodies to human protein NOGO for treatment and/or prophylaxis of neurol. diseases) (light chain, monoclonal antibodies to human protein NOGO for treatment and/or prophylaxis of neurol. diseases) (monoclonal; monoclonal antibodies to human protein NOGO for (neuropathy; monoclonal antibodies to human protein NOGO for (Preparation); USBS (Uses) (monoclonal antibodies to human protein NOGO for treatment and/or prophylaxis of neurol. diseases) (monoclonal antibodies to human protein NOGO for treatment (injury; monoclonal antibodies to human protein NOGO for treatment and/or prophylaxis of neurol. diseases) treatment and/or prophylaxis of neurol. diseases) treatment and/or prophylaxis of neurol. diseases) Antibodies and Immunoglobulins and/or prophylaxis of neurol. diseases) Antibodies and Immunoglobulins Antibodies and Immunoglobulins (Preparation); USES (Uses) (Preparation); USES (Uses) (Preparation); USES (Uses) Anti-Alzheimer's agents Antiparkinsonian agents Drug delivery systems Multiple sclerosis Nervous system, disease Nervous system agents Drug delivery systems (injections, i.v.; Spinal cord, disease Parkinson's disease Molecular cloning Protein sequences Nerve, dinease cDNA sequences Prophylaxis Animal cell Mutagenesis Injury Human

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treatment and/or prophylaxis of neurol. diseases) Brain, disease

II

;	DIAIN, Wiberabe (atroke monor)ona) antihodiae to human protein NOCO for
	neurol. diseases)
II	:
	treatment and/or prophylaxis of neurol. diseases)
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	study, unclass
	PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP
	CDR-H1; monoclonal
	protein NOGO for treatment and/or prophylaxis of neurol.
ŀ	A DALAND COLOR OF THE COLOR OF
;	: BPN (Biosynthetic preparation): BSU (Biological study unclassified)
	, fana
	(amino acid sequence, 2410 CDR-H2; monoclonal antibodies to human
	ment and/or prophylaxis of neurol.
H	857289-05-5P
	BPN (Biosynthetic preparation); BSU (Biological study,
	PARP (Properties); THO (Therapeutic use); BIOL (Biological study); PREP
	(Freparation); USES (USES) (amino acid segience 2010 CDD.H3: monoclonel antihodies to himse
	A consequence of the consequence
E	250143-97-69
;	FIG. TAN (Ricewithetic preparation). RGI (Richorica) etudy unclassified).
	DDD (Drongerties), THI (Theremonitic use) (DIO) (Dio) content set of the DDD
	for frightless; inc filterapears dest, bron (brondless beauty); fabruarstick).
	10 CDB-11.
	(amino acid Sequence, Allo CDK-LL; monocional antibodies to numan
	and or propingrants
H	201468-24-8P
:	DI. BDN (Biographetic preparation). BGH (Biological etudy unclassified).
	(Properties): THU (Therapeutic use): BIOL (Biological study): PREP
	(amino acid sequence, 2410 CDR-L2; monoclonal antibodies to human
	of neurol.
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II	857289-03-3P
	RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified);
	(Preparation); USES (Uses)
	CDR-L3; monoclonal
	ဗ္ဗ
II	mutated variants 875356-50-6DP, h
	rivs. 875356-54-0P 875356-55-
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	8/3338-88-48 8/3338-8/-38 8/3338-86-88 86386-70-00 876386-71-10 876386-73-30 876386-73-3
	4T-T/-0656/0 40-0/-0656/0
	8/3338-/3-3F 8/3338-/0-6F 8/3338-//-/F
	875356-85-7P 875356-87-9P 875356-88-0P
	-4P 875356-91-5P 875356-92-6P 875356-93-7P
	356-95-9P 875356-96-0P 875356-97-1P 875356-98-2P 875356-99
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	p.62

(spinal cord; monoclonal antibodies to human protein NOGO for

H

RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP 875357-01-0DP, mutated variants 875357-02-1P

(Preparation); USES (Uses)
(amino acid sequence; monoclonal antibodies to human protein NOGO for treatment and/or prophylaxis of neurol. diseases)

RL: BUU (Biological use, unclassified); PRP (Properties); BIOL (Biological 875356-86-8

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(amino acid sequence, monoclonal antibodies to human protein NOGO for treatment and/or prophylaxis of neurol. diseases)
390291-55-1, GENBANK AJ251385 392124-59-3, GenBank AJ251384
392205-86-6, GenBank AJ251383
RL: BSU (Biological study, unclassified); PRP (Properties); BIOL study); USES (Uses)

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(Biological study)

(monoclonal antibodies to human protein NOGO for treatment

and/or prophylaxis of neurol. diseases) 875356-52-8D, derivs. 875356-53-9D, derivs. RL: BUU (Biological use, unclassified); PRP (Properties); BIOL (Biological £

(nucleotide sequence; monoclonal antibodies to human protein NOGO for Btudy); USES (UBes)

875357-57-6 875357-62-3 875357-67-8 875357-26-9 875357-41-8 875357-51-0 875357-36-1 875357-46-3 875357-35-0 875357-40-7 875357-56-5 875357-61-2 875357-66-7 875357-25-8 875357-30-5 875357-45-2 875357-50-9 treatment and/or prophylaxis of neurol. diseases) 875357-29-2 875357-44-1 875357-55-4 875357-65-6 875357-34-9 875357-39-4 875357-49-6 875357-60-1 875357-33-8 875357-53-2 875357-59-8 875357-28-1 875357-38-3 875357-43-0 875357-48-5 875357-64-5 875357-47-4 875357-52-1 875357-58-7 875357-63-4 875357-22-5 875357-27-0 875357-37-2 875357-42-9 875357-32-7 H

(unclaimed nucleotide sequence; monoclonal antibodies to human protein NOGO for the treatment and/or prophylaxis of neurol. RL: PRP (Properties) diseases)

875357-71-4

875357-70-3

875357-69-0

875357-68-9

875357-72-5 875357-54-3 片

RL: PRP (Properties)

monoclonal antibodies to human protein (unclaimed protein sequence, monoclonal antibodies to NOGO for the treatment and/or prophylaxis of neurol.

diseases) 247166-37-6 H

RL: PRP (Properties) (unclaimed sequence; monoclonal antibodies to human protein NOGO for the treatment and/or prophylaxis of neurol. diseases

HCAPLUS COPYRIGHT 2007 ACS on STN 2005:823596 HCAPLUS Full-text L152 ANSWER 9 OF 36

Treatment of conditions involving dopaminergic neuronal degeneration using Nogo 143:222540 ACCESSION NUMBER: DOCUMENT NUMBER: TITLE:

receptor antagonists Relton, Jane K.; Engber, Thomas M.; Strittmatter, Stephen M. INVENTOR (S):

Biogen Idec MA Inc., USA; Yale University PATENT ASSIGNEE (S):

PCT Int. Appl., 26 pp. CODEN: PIXXD2

SOURCE:

DOCUMENT TYPE: LANGUAGE:

10/553,669

FAMILY ACC. NUM. COUNT: PATENT INFORMATION:

HATENT NO. KIND DATE APPLICATION NO. DATE  WO 2005074972 A2 20050818 WO 2005074972 A3 20051222 WI AB, AL, AM, AT, AU, AZ, BA, BB, BG, BK, BW, BY, BZ, CA, CH, CG, CR, CU, CZ, DB, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, CG, CH, CH, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MM, MX, MZ, NA, NI, LM, LS, LT, LU, LV, MA, MD, MG, MK, MN, MM, MX, MZ, NA, NI, NG, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TM, TR, TT, TT, TD, GG, CH, CY, CZ, DB, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PT, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GM, CA, CA, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NB, MT, NB, ND, MT, ND, ND, MG, ML, MR, NB, MT, ND, ND, MG, ML, MR, NB, MT, MB, MT, MT, MT, MT, MT, MT, MT, MT, MT, MT																												
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of function in dopaminergic pathways in the brain after injury in mice lacking Nogo receptor. Treatment with the Nogo receptor antagonist SNR(1310)-FC (soluble mature Nogo receptor fused with an Ig Fc fragment) increases cell survival and improved recovery in dopaminergic pathways in rat brain after dopaminergic neurons in a mammal displaying signs or symptoms of dopaminergic neuronal degeneration, including a human with Parkinson's disease, using Nogo receptor antagonists. The number of surviving dopaminergic neurons in the substantia nigra was significantly greater in Nogo receptor knockout mice compared to their heterozygote and wild-type litter-mate controls 4 wk after unilateral 6-hydroxydopamine injections. In addition, rotational behavior in response to apomorphine challenge was significantly lower in Nogo receptor-null mice. These data show increased neuronal survival and improved recovery injury. Thus, Nogo receptor antagonists comprising soluble Nogo receptor polypeptides, antibodies to the Nogo receptor protein, and small mol. may promote regeneration and survival of dopaminergic neurons in mammals The invention provides methods for promoting regeneration or survival of Entered STN: 19 Aug 2005 8 8

ICM A61K038-17 ICS C07K016-28; A61P025-00; A61P025-28 1-11 (Pharmacology) ST

displaying degeneration.

Nervous system, disease H

dopaminergic neuron degeneration Nogo receptor

(Hallervorden-Spatz disease; treatment of conditions involving dopaminergic neuronal degeneration using Nogo receptor antagonists)

Nervous system, disease H

(Huntington's chorea; treatment of conditions involving (Machado-Joseph, treatment of conditions involving dopaminergic neuronal degeneration using Nogo dopaminergic neuronal degeneration using Nogo receptor antagonists) receptor antagonists) Nervous system, disease Receptors H

RL: PAC (Pharmacological activity); PRP (Properties); THU (Therapeutic use); BDC (Balological study); USES (Uses) (Nogo; treatment of conditions involving dopominergic neuronal degeneration using Nogo receptor antagonists)

H

(Shy-Drager syndrome; treatment of conditions involving dopaminergic neuronal degeneration using Nogo Disease, animal

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(X-linked dystonia-parkinsonism, treatment of conditions involving dopaminergic neuronal degeneration using Nogo receptor antagonists) receptor antagonists) Nervous system, disease Ħ

(cerebral palsy, treatment of conditions involving dopaminergic neuronal degeneration using Nogo receptor antagonists) Movement disorders

H

H

(corpus striatum; treatment of conditions involving dopaminergic neuronal degeneration using Nogo receptor antagonists) Brain

(degeneration; treatment of conditions involving dopaminergic neuronal degeneration using Nogo receptor Nervous system, disease

H

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL
(Biological study); USES (Uses)
 (diabodies; treatment of conditions involving dopaminergic neuronal degeneration using Nogo receptor antagonists)

Antibodies and Immunoglobulins

H

H

antagonists)

Mental and behavioral disorders (diffuse Lewy body disease; treatment of conditions involving dopaminergic neuronal degeneration using Nogo receptor antagonists) Phagocyte

H

(disease, Chediak-Higashi syndrome; treatment of conditions involving dopaminergic neuronal degeneration using Nogo receptor antagonists) Nerve

H

(dopaminergic, disease, degeneration; treatment of conditions involving dopaminergic neuronal degeneration using Nogo receptor antagonists) RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (fragments; treatment of conditions involving dopaminergic Antibodies and Immunoglobulins H

RL: PAC (Pharmacological activity); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses) Antibodies and Immunoglobulins H

p.65

neuronal degeneration using Nogo receptor

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fusion products; treatment of conditions involving dopaminergic neuronal degeneration using Nogo

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses) Antibodies and Immunoglobulins H

(monoclonal; treatment of conditions involving dopaminergic neuronal degeneration using Nogo receptor antagonists) Nerve, disease

involving dopaminergic (motor; treatment of conditions involving neuronal degeneration using Nogo receptor antagonists)

II

H

treatment of conditions involving (multiple system atrophy, treatment of conditi dopaminergic neuronal degeneration using Nogo receptor antagonists) Nervous system, disease Syphilis

H

(neuro-, treatment of conditions involving dopaminergic neuronal degeneration using Nogo receptor (postencephalitic; treatment of conditions involving dopaminergic neuronal degeneration using Nogo receptor antagonists) Parkinson's disease antagonists) H

(pseudobulbar, treatment of conditions involving dopaminergic neuronal degeneration using Nogo receptor Paralysis

H

(single chain; treatment of conditions involving dopaminergic RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses) neuronal degeneration using Nogo receptor Antibodies and Immunoglobulins antagonists) II

(spinocerebellar ataxia, treatment of conditions involving dopaminergic neuronal degeneration using Nogo receptor antagonists) disease Nervous system, antagonists) H

(striatonigral tract, disease, degeneration; treatment of conditions involving dopaminergic neuronal degeneration using Nogo receptor antagonists) Brain Brain H H

(trauma, treatment of conditions involving dopaminergic neuronal degeneration using Nogo receptor (substantia nigra; treatment of conditions involving dopaminergic neuronal degeneration using Nogo receptor antagonists) Head and Neck, disease ΙŢ

Antiparkinsonian agents Nervous system agents Alzheimer's disease Parkinson's disease Nerve regeneration Nerve regeneration Protein sequences antagonists) Prion diseases Ħ

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	Wilson's disease					, و
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	862861-61-8, 1-310-Nogo receptor (human)	Ę		•	AB .	Methods
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	degeneration using Nogo receptor	ceptor	4			(Biologic
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	treating	neurodegen	treating neurodegenerative disease,			Nogon
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of modulating production of an amyloidogenic peptide is disclosed. Use methods in the treatment of diseases involving amyloidosis, for Alzheimer's disease, is also disclosed. NL, SE, MC, PT, PL, SK, HR, IS A 20031222 <--A 20031222 <--W 20041220 <--(Biosynthetic preparation); BSU (Biological study, unclassified); perties); THU (Therapeutic use); BIOL (Biological study); PREP (tion); USES (Uses) 20041220 <--(Biological study, unclassified); THU (Therapeutic use); BIOL cal study); USES (Uses) (Biological study, unclassified); THU (Therapeutic use); BIOL GB, KZ, NA, SL, ZM, ZW, DE, (Biological study, unclassified); BIOL (Biological study) oidogenic; humanized anti-human Nogo or FI, MZ, ZM, ZM, GL, ES, MX, YU, YU, CY, GN, , GB, GR, IT, LI, LU, NI, TR, BG, CZ, EE, HU, PI GB 2003-29684 GB 2003-29711 WO 2004-GB5343 neration, humanized anti-human Nogo or NogoA in antibodies and antagonists for treating degenerative disease, amyloidosis and Alzheimer's protein antibodies and antagonists for treating neurodegenerative disease, amyloidosis and Alzheimer's ssis neurodegenerative disease, Alzheimer disease ogenic peptide modulator antibody Nogo ing neurodegenerative disease, amyloidosis and EP 2004-806145 onists for treating neurodegenerative disease, idosis and Alzheimer's disease) onists for treating neurodegenerative disease, idosis and Alzheimer's disease) EE, KE, MN, SD, VC, VC, SZ, CM, ments; humanized anti-human Nogo or NogoA EC, AR, MK, SC, UZ, SL, IT, protein antibodies and antagonists for DZ, MG, RU, US, SD, AT, CG, go NogoA protein humanized antibody o, antagonist; humanized anti-human or NogoA protein antibodies and A antagonist; humanized anti-human or NogoA protein antibodies and CF, TA, CCF, DK, ES, FR, G FI, RO, CY, 1 20061004 CZ, DE, HU, ID, LU, LV, PH, PL, TT, TZ, LS, MW, MD, GB, GR, TR, BF, cal study); USES (Uses) es and Immunoglobulins , biological studies P025-28; C12N005-08 STN: 08 Jul 2005 CG, HR, LT, TR, RE, TR, TD, TD, imer's disease) system, disease munochemistry) £ ; CR, LLS, OM, CM, KG, KG, SI, CCN, CCO, CR GE, GH, GG, LK, LIR, LIS, NO, NZ, OM TJ, TM, TN BM, GH, GG RE, ES, FI RR, SE, ST, MR, NE, SN, AT, BE, CH, IE, SI, LT, LM, INPO:

Antibodies and Immunoglobulins

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(Preparation); USES (Uses)		human
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protein antibodies and antagonists for treating	•	RL: B
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Amyloidosis		NO
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Human Molecular cloning	11	14997
Protein sequences	i	20932
(human1zed anti-human Nogo or NogoA protein		59036
antibodies and antagonists for treating		85728
neurodegenerative disease, amyloidosis and Alzheimer's		85732
Antibodies and Immunoglobulins		85732
RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified);		85732
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neurodegenerative disease, amyloidosis and Alzheimer's		human
disease)		RL: B
Antibodies and Immunoglobulins		PRP (
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neurodegenerative disease, amyloidosis and Alzheimer's	II	85733
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Antibodies and Immunoglobulins		85733
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protein antibodies and antagonists for treating		RL: P
neurodegenerative disease, amyloidosis and Alzheimer's		
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Antidocies and imminoglobuline Br. HDM (Ricewortheric preparation) - RCH (Richorical study unclassified).		A C
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(monoclonal; humanized anti-human Mogo or NogoA	ACC ACC	ACCESSION DOCUMENT N
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NogoA protein antibodies and antagonists for		

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neurodegenerative disease, amyloidosis and

zheimer's disease)

Human NOGO protein-specific antibodies and derivatives BPN (Biosynthetic preparation); BSU (Biological study, unclassified); (Properties); THU (Therapeutic use); BIOL (Biological study); PREP paration); USES (Uses) BPN (Biosynthetic preparation); BSU (Biological study, unclassified); (Properties); THU (Therapeutic use); BIOL (Biological study); PREP paration); USES (Uses) BPN (Biosynthetic preparation); BSU (Biological study, unclassified); (Properties); THU (Therapeutic use); BIOL (Biological study); PREP Ellis, Jonathan Henry; Eon-Duval, Alexandre; Grundy, Robert Ian; Hussain, Farhana; McAdam, Ruth; Plumpton, Christopher; Prinjha, Rabinder Kumar; Wilson, Paul 380538-13-6P 857289-06-6P 857329-30-7P 857329-35-2P 857329-40-9P 857329-45-4P 857329-96-5DP, humanized 857329-97-6DP, humanized 857329-99-8DP, humanized 857330-01-9DP, humanized 857330-02-0DP, 857330-07-5 857330-12-2 857330-27-9 857330-32-6 857329-92-1DP, 857330-17-7 857330-22-4 857329-93-2DP, humanized 857329-94-3DP, humanized unclaimed nucleotide sequence; humanized anti-human Mogo or 857329-34-1P 857329-39-6P 857329-44-3P 380538-12-5P 857289-05-5P ntibodies and antagonists for treating leurodegenerative disease, amyloidosis and Alzheimer's 164982-65-4P 857329-29-4P reating neurodegenerative disease, amyloidosis and 857330-16-6 857330-21-3 logoa protein antibodies and antagonists for reating neurodegenerative disease, amyloidosis and reating neurodegenerative disease, amyloidosis and paration); USES (Uses)
amino acid sequence; humanized anti-human Nogo or
ogoA protein antibodies and antagonists for nucleotide sequence; humanized anti-human Nogo or 857330-06-4 857330-11-1 857330-26-8 857330-31-5 857329-91-0DP, humanized for treatment of stroke or other neurological diseases ER 11 OF 36 HCAPLUS COPYRIGHT 2007 ACS on STN 2005:589033 HCAPLUS Full-text ogoh protein antibodies and antagonists for humanized anti-human Nogo or NogoA protein 263365-34-0P 857289-04-4P 857289-09-9P 857329-33-0P 857329-38-5P 857329-43-2P 158329-15-8P 857330-15-5 857330-20-2 857330-05-3 857330-10-0 857330-25-7 143:114053 151145-43-6P 250143-97-6P 857289-03-3P 857329-32-9P 857329-37-4P 857289-08-8P 857329-42-1P 29-90-9DP, humanized nized 857329-98-7DP, 30-00-8DP, humanized 29-28-3DP, humanized 857330-04-2 857330-14-4 857330-19-9 857330-09-7 857330-24-6 857330-29-1 nized 857329-93-2DE 29-95-4DP, humanized Laheimer's disease) (zheimer's disease) lzheimer's **disease**) PRP (Properties) 370-72-99 329-62-49 368-20-09 289-07-79 329-31-89 329-41-09 329-46-59 130-03-1 130-08-6 130-13-3 130-18-8 30-23-5 30-28-0 isease) 30-33-7 NUMBER: nized : (S

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Entered STN: 08 Jul 2005 AB BD

The present invention relates to antibodies to NOGO, pharmaceutical formulations containing them and to the use of such antibodies in the treatment and/or prophylaxis of neurol. diseases/disorders.

C07K016-22 ICM Ч

A61P025-28; A61P025-00 ICS

15-3 (Immunochemistry) ပ္ပ

Section cross-reference(s): 3, 63 Animal cell line H

(3T3; human NOGO protein-specific antibodies and derivs. for rreatment of stroke or other neurol. diseases) Animal cell line H

(CHO, human NOGO protein-specific antibodies and derivs. for treatment of stroke or other neurol. diseases)

(COS; human NOGO protein-specific antibodies and derivs. for treatment of stroke or other neurol. diseases) Animal cell line LI

Nervous system, disease

H

(Huntington's chorea; human NOGO protein-specific antibodies and derivs. for treatment of stroke or other neurol. diseases) Proteins H

p.71

RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(NOGO-A, human NOGO protein-specific antibodies and derivs. for treatment of stroke or other neurol. diseases)

H

RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(NOGO-B; human NOGO protein-specific antibodies and derivs. for treatment of stroke or other neurol. diseases)

Proteins Ħ

RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(NOGO-C; human NOGO protein-specific antibodies and derivs. for treatment of stroke or other neurol. diseases)

RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES Fusion proteins (chimeric proteins) (Nses) H

(NGGO; human NOGO protein-specific antibodies and derivs. for treatment of stroke or other neurol. diseases) Animal cell line

H

(NSO; human NOGO protein-specific antibodies and derivs. for treatment of stroke or other neurol. diseases)

Proteins ij

RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(Nogo, human NOGO protein-specific antibodies and derivs. for treatment of stroke or other neurol. diseases)

Animal cell line

H

(Sp2/0; human NOGO protein-specific antibodies and derivs. for treatment of stroke or other neurol. diseases)

H

H

Drug delivery systems (carriers, human NOGO protein-specific antibodies and derivs. for treatment of stroke or other neurol. diseases)

(cerebral; human NOGO protein-specific antibodies and derivs. for Injury

RL: BPN (Biosynthetic preparation), BSU (Biological study, unclassified), PRP (Properties); THU (Therapeutic use), BIOL (Biological study); PREP treatment of stroke or other neurol. diseases) Antibodies and Immunoglobulins H

(chimeric, human NOGO protein-specific antibodies and derivs. for (Preparation); USES (Uses)

treatment of stroke or other neurol. diseases) Nervous system, disease

H

(degeneration; human NOGO protein-specific antibodies and derivs. for treatment of stroke or other neurol. diseases) Mental and behavioral disorders H

(dementia, fronto-temporal; tauopathy; human NOGO protein-specific antibodies and derivs. for treatment of stroke or other neurol, diseases)

RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP Antibodies and Immunoglobulins H

for (fragments; human NOGO protein-specific antibodies and derivs. (Preparation); USES (Uses)

treatment of stroke or other neurol. diseases) Antibodies and Immunoglobulins

RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); II

(heavy chain, human NOGO protein-specific antibodies and derivs. for (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

ureaument of stroke or other neurol, diseases)

Animal tissue culture

H

Culture media DNA sequences

Dissociation constant

Drug delivery systems

Genetic vectors Fibroblast

Molecular cloning

Multiple sclerosis

Nervous system, disease

Parkinson's disease

Protein Dequences

(human NOGO protein-specific antibodies and derivs. for

treatment of stroke or other neurol. diseases)

H

RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP Antibodies and Immunoglobulins

(human NOGO protein-specific antibodies and derivs. for (Preparation); USES (Uses)

ureatment of stroke or other neurol. diseases) Antibodies and Immunoglobulins 11

RL: BPN (Biosymthetic preparation), BSU (Biological study, unclassified), PRP (Properties), THU (Therapeutic use), BIOL (Biological study); PREP

(Preparation), USES (Uses) (humanized; human NOGO protein-specific antibodies and derivs. for treatment of stroke or other neurol. diseases)

Drug delivery systems II

(injections, i.v.; human NOGO protein-specific antibodies and derivs. for treatment of stroke or other neurol. diseases) for

Spinal cord, disease Brain, disease H

(injury; human NOGO protein-specific antibodies and derivs. for treatment of stroke or other neurol. diseases)
Antibodies and Immunoglobulins

RL: BPN (Biosynthetic preparation), BSU (Biological study, unclassified); PRP (Properties), THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) H

(light chain; human NOGO protein-specific antibodies and derivs. for treatment of stroke or other neurol. diseases) Animal cell

H

(mammalian, human NOGO protein-specific antibodies and derivs. for troatment of stroke or other neurol. diseaseș)

Antibodies and Immunoglobulins H

RL: BPN (Biosynthetic preparation), BSU (Biological study, unclassified PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

study, unclassified);

(monoclonal, neutralizing; human NOGO protein-specific antibodies and derivs. for treatment of stroke or other neurol. diseases) and Immunoglobulins Antibodies

ä

RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

unclassified);

(monoclonal; human NOGO protein-specific antibodies and derivs. for treatment of stroke or other neurol. diseases)

H

(neuropathy; human NOGO protein-specific antibodies and derivs. for treatment of stroke or other neurol. diseases) H

RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP Antibodies and Immunoglobulins

(neutralizing, human NOGO protein-specific antibodies and derivs. for (Preparation); USES (Uses)

treatment of stroke or other neurol. diseases)

H

(outgrowth, sprouting promotion; human NOGO protein-specific antibodies and derivs. for treatment of stroke or other neurol. Axon

diseases) Injury

H

(spinal cord, human NOGO protein-specific antibodies and derivs. for treatment of stroke or other neurol. diseases)

Brain, disease

H

H

(stroke; human NOGO protein-specific antibodies and derivs. for treatment of stroke or other neurol. diseases)

(trauma, human NOGO protein-specific antibodies and derivs. for treatment of stroke or other neurol. diseases) Brain, disease

857512-40-4DP, humanized or 857508-25-9DP, humanized or chimeric derivs. 857512-40-4DP, hu chimeric derivs. 857512-41-5DP, humanized or chimeric derivs. 11

857512-42-6DP, humanized or chimeric derivs. 857512-43-7DP, humanized or chimeric derivs. 857512-44-8DP, humanized or chimeric derivs. 857512-59DP, humanized or chimeric derivs. 857512-53-9DP, humanized or chimeric derivs. chimeric derivs. 857512-55-1DP, humanized or chimeric derivs.

857512-57-3DP, Protein . 857512-58-4DP, humanized 857512-64-2DP, humanized or or chimeric derive. 857512-59-5DP, humanized or chimeric derive. 857512-62-0DP, humanized or chimeric derive. 857512-64-2DP, human 857512-56-2DP, humanized or chimeric derivs. 8 NOCO-A56 (human), humanized or chimeric derivs. or chimeric derivs. 857512-59-5DP, humanized or chimeric derivs.

RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

201468-24-8P 857289-06-6P 857508-27-1P 857508-32-8P (amino acid sequence; human NOGO protein-specific antibodies and derive. for treatment of stroke or other neurol. diseases) 970-72-9P 151145-43-6P 158329-15-8P 164982-65-4P 2329-62-4P 250143-97-6P 263365-34-0P 380538-12-5P 3 857289-05-5P 857508-26-0P 857508-31-7P 857289-04-4P 857289-09-9P 857508-30-6P 857508-35-1P 857289-03-3P 857289-08-8P 857508-29-3P 149970-72-9P 209329-62-4P 590368-20-0P 857289-07-7P 857508-28-2P H

RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP 857508-42-0P 857508-41-9P 857508-40-8P 857508-39-5P 857508-38-4P

857508-37-3P

857508-36-2P

857508-34-0P

857508-33-9P

(human NOGO protein-specific antibodies and derivs. for treatment of stroke or other neurol. diseases) (Preparation); USES (Uses)

195861-53-1D, GenBank U84162, chimeric derivs. 390291-55-1, GenBank AJ551385 392124-59-3, GenBank AJ551384 392205-86-6, GenBank AJ551383 Ħ

480670-48-2D, GenBank CAA85593, chimeric derivs. RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

anized or chimeric derivs. 857512-46-0DP, humanized or 857512-47-1DP, humanized or chimeric derivs. (human NOGO protein-specific antibodies and derivs. treatment of stroke or other neurol. diseases) 857512-45-9DP, humanized or chimeric derivs. 85 H

chimeric derivs. 857512-50-6DP, humanized or chimeric derivs. 857512-51-7DP, humanized or chimeric derivs. 857512-52-8DP, humanized or 857512-60-8DP, humanized or chimeric derivs. tanized or chimeric derivs. 857512-63-1DP, humanized or 857512-49-3DP, humanized or chimeric derivs. 857512-65-3DP, humanized or chimeric derivs. RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP chimeric derivs. 857512-60-8DP, humanized o 857512-61-9DP, humanized or chimeric derivs. 857512-48-2DP, humanized or chimeric derivs. (Preparation); USES (Uses)

(nucleotide sequence; human NOGO protein-specific antibodies and 857514-55-7 857514-60-4 857514-70-6 857514-65-9 857514-80-8 857514-75-1 derive. for treatment of stroke or other neurol. diseases) 1166-37-6 857514-52-4 857514-53-5 857514-54-6 857514 7514-56-8 857514-57-9 857514-58-0 857514-59-1 857514 857514-74-0 857514-79-5 857514-64-8 857514-69-3 857514-68-2 857514-73-9 857514-78-4 857514-63-7 857514-72-8 857514-62-6 857514-67-1 857514-82-0 857514-77-3 247166-37-6 857514-76-2 857514-61-5 857514-56-8 857514-66-0 857514-71-7 857514-81-9

H

(unclaimed sequence; human NOGO protein-specific antibodies and derivs. for treatment of stroke or other neurol. diseases)

RL: PRP (Properties)

Methods of stimulating axonal growth of CNS neurons antagonists in combination with growth factors Benowitz, Larry I.; Fischer, Dietmar Children's Medical Center Corporation, USA HCAPLUS COPYRIGHT 2007 ACS on STN 2005:564795 HCAPLUS Full-text PCT Int. Appl., 74 pp. using Nogo receptor CODEN: PIXXD2 143:91068 English Patent FAMILY ACC. NUM. COUNT: L152 ANSWER 12 OF 36 INVENTOR(S): PATENT ASSIGNEE(S): PATENT INFORMATION: ACCESSION NUMBER: DOCUMENT NUMBER: TITLE: DOCUMENT TYPE: LANGUAGE: SOURCE:

APPLICATION NO. PATENT NO.

20041216 <--20031216 <--20041216 <--SM 20041216 <--20041216 <--20041216 <--MC, PT, PL, SK, P. M. SY, ZW, ξÄ SE, HU, BY, SA, SA, SA, SA, SA, Ę, EE, LI, LU, BG, CZ, WO 2004-US42255 CA 2004-2549000 EP 2004-814439 JP 2006-545428 US 2003-529833P WO 2004-US42255 SL, BE, IT, CI, GB, GR, IT, CY, AL, TR, JP, MK, SC, UZ, RU, US, SD, AT, IS, CG, Ĕ, GE HA 20060830 20050630 0050630 ď, 3060900 ÅÜ, Ж, F 3 6 8 E 5 A1 VC, YC, AM, AM, CU, CU, CU, CU, KE, KE, KE, KE, KE, KE, FR, TD, TD, TD, TD, BE, CH, SI, LT, HR, IS, AL, CR, CR, CR, CR, SH, SH, PRIORITY APPLN. INFO.: JP 2007514748 WO 2005059515 WO 2005059515 AT, BA, CA 2549000 EP 1695061 ä

p.75

2004-US42255

30 Jun 2005

AB BD

The invention is based on the discovery that suppressing the activity of the

Nogo receptor (19gR) alone does not result in extensive axon regeneration unless the intrinsic growth program of neurons is also activated.

Accordingly, the invention is directed to methods of stimulating axon regeneration using a combination therapy wherein agents that inhibit NgR activity or downstream pathways activated by inhibitory signals are combined with agents that activate the growth pathway of neurons (e.g. polypeptide growth factors, activators of marcophages, purine nucleosides, or hexoses). The invention provides protein sequences for Nogo receptor peptide antagonists, including soluble Nogo receptor fragments. Rats were injected with an adeno-associated viral vector expressing Nogo receptor or a dominant-neg. Nogo receptor (NgRDN). After nerve crush and lens injury, animals expressing NGPD reporter and 75x more axon extensions than animals expressing In another example, RhoA protein was inactivated by transgenic injury, to activate the growth state of retinal ganglion cells, animals expressing the C3 transgene had 4.5x more axons that extended far beyond the injury site compared with uninjured animals expressing G3 transgene or non-transgenic injured animals. In both examples, the effects of transgenes on retinal ganglion cell growth were greater when cells were grown on myelin, a expression of Clostridium botulinum C3 ADP-ribosyltransferase. After lens Brain, disease (Gilles de la Tourette syndrome; methods of stimulating axonal growth Peptides, biological studies RL: BPN (Biosynthetic preparation); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) Nervous system, disease (Friedreich's ataxia; methods of stimulating axonal growth of CNS (Huntington's chorea; methods of stimulating axonal growth of CNS RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (CNTF; methods of stimulating axonal growth of CNS neurons using (NT-3; methods of stimulating axonal growth of CNS neurons using methods of stimulating axonal growth of CNS neurons using Nogo receptor (NgR) antagonists in combination RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (NGR antagonist or NGR ligand-binding; RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) neurons using Nogo receptor (NgR) antagonists in combination with growth factors) of CNS neurons using Nogo receptor (NgR) antagonists in combination with growth factors) neurons using Nogo receptor (NgR) antagonists in combination with growth factors) antagonist growth factor; protein sequence Nogo Section cross-reference(s): 2, 3, 6, 13, 15 CNS neuron regeneration method Nogo receptor Nogo receptor (NgR) antagonists in combination with growth factors) Nogo receptor (NgR) antagonists in combination with growth factors) Antibodies and Immunoglobulins receptor peptide antagonist Growth factors, animal Nervous system, disease with growth factors) Growth factors, animal inhibitory substrate. ICM GOIN 1-11 (Pharmacology) wild-type NgR. H H H ST H Ħ H S H H

(NgR antagonists; methods of stimulating axonal growth of CNS neurons using Nogo receptor (

NgR) antagonists in combination with growth factors)

H

RL: BPN (Biosynthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (Nogo; methods of stimulating axonal growth of CNS neurons

using Nogo receptor (NgR)

antagonists in combination with growth factors) Proteins

H

RL: BSU (Biological study, unclassified); BIOL (Biological study) (Nogo; methods of stimulating axonal growth of CNS neurons using Nogo receptor (NgR) antagonists in combination with growth factors)

Mental and behavioral disorders

H

(Pick's disease; methods of stimulating axonal growth of CNS neurons

using Nogo receptor (NgR) antegonister in combination with growth factors) Rho protein (G protein) Rp. Rp. BUU (Biological study); USES RL: BUU (Biological use, unclassified); BIOL (Biological study); USES H

(Uses)

(RhoA, NgR signaling; methods of stimulating axonal growth of CNS neurons using Nogo receptor (NgR) antagonists in combination with growth factors)

(Shy-Drager syndrome; methods of stimulating axonal growth of CNS Disease, animal H

neurons using Nogo receptor (NgR) antagonists in combination with growth factors) H

Nervous system, disease (amyotrophic lateral sclerosis; methods of stimulating axonal growth CNS neurons using Nogo receptor (NgR) antagonists in combination with growth factors) Brain, disease H

(aneurysm; methods of stimulating axonal growth of CNS neurons using in combination with growth factors) antagonísts Nogo receptor (NgR)

(atrophy, diffuse cerebral cortical; methods of stimulating axonal growth of CNS neurons using Nogo receptor (NSR) antagonists in combination with growth factors) Disease, animal

H

(atrophy; methods of stimulating axonal growth of CNS neurons using Nogo receptor (NgR) antagonists in combination with growth factors) Muscle, disease H

H

Neurotrophic factors

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (brain-derived; methods of stimulating axonal growth of CNS neurons using Nogo receptor (NgR)

antagoniats in combination with growth factors) G protein-coupled receptors
RL: BUU (Biological use, unclassified); BIOL (Biol

H

(Biological study); USES

methods of stimulating axonal growth of CNS neurons antagonists in combination with growth factors) (cAMP signaling;

CAMP signaling, methods of stimulating axonal growth of CNS neurons using Nogo receptor (NgR) (calcium,

H

antagonists in combination with growth factors)

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H

# 10/553,669

(cerebral; methods of stimulating axonal growth of CNS neurons using Nogo receptor (NgR) antagonists in combination with growth factors)

Nervous system, disease

H

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(chorea, acanthocytic; methods of stimulating axonal growth of CNS neurons using Nogo receptor (NgR)

antagonists in combination with growth factors)

(chronic progressive external ophthalmoplegia, methods of stimulating axonal growth of CNS neurons using Nogo receptor (NS) neurons using Nogo receptor (NS) antagonists in combination with growth factors)

stimulating (degeneration, Hallervorden-Spatz disease; methods of axonal growth of CNS neurons using Nogo receptor (NgR) antagonists in combination with growth factors) Nervous system, disease

Brain, disease

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methods of stimulating axonal growth of CNS antagonists in combination with growth factors) neurons using Nogo receptor (NgR) (degeneration, thalamic,

õ (dementia, Gerstmann-Straussler-Scheinker disease; m stimulating axonal growth of CNS neurons using Nogo receptor (NgP) antagonists in combination Mental and behavioral disorders

H

with growth factors)
Mental and behavioral disorders
(dementia, mesolimbocortical; methods of stimulating axonal growth

H

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antagonists in combination with growth factors) CNS neurons using Nogo receptor (NgR)

Mental and behavioral disorders (diffuse Lewy body disease; methods of stimulating axonal growth of CNS antagonists in combination with growth factors) (NgR) neurons using Nogo receptor H

(dominant-neg. NgR; methods of stimulating axonal growth of CNS neurons using Nogo receptor (NgR) Mutagenesis

H

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Nervous system, disease (dyskinesia, Meige syndrome; methods of stimulating axonal growth antagonists in combination with growth factors) H

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antagonists in combination with growth factors) CNS neurons using Nogo receptor (NgR)

(dystonia musculorum deformans; methods of stimulating axonal growth CNS neurons using Nogo receptor (NgR) antagonists in combination with growth factors) Nervous system, disease II

(familial; methods of stimulating axonal growth of CNS neurons using in combination with growth factors) antayonists Nogo receptor (NgR)

Transgene H

H

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (for ADP-ribosyltransferase; methods of stimulating axonal growth of CNS neurons using Nogo receptor (NgR)

antagonists in combination with growth factors) Gene, animal

neurons using (Uses) THU (Therapeutic use); BIOL (Biological study); USES (for NgR; methods of stimulating axonal growth of CNS: ä H

in combination with growth factors) Nogo receptor (NgR) antagonists

RL: THU (Therapeutic use); BIOL (Biological study); USES

glial-derived; methods of stimulating axonal growth of CNS neurons antagonists in combination with growth factors) using Nogo receptor (NgR)

Drug delivery systems

TI

CNS neurons ŏ growth (injections, s.c.; methods of stimulating axonal antagonists in combination with growth factors) (NgR) using Nogo receptor

Spinal cord, disease H

neurons using CNS (injury, methods of stimulating axonal growth of

Nogo receptor (NgR) antagonists in combination with growth factors)

Drug delivery systems

H

(intrathecal; methods of stimulating axonal growth of CNS neurons using Nogo receptor (NgR) antagonists in combination with growth factors)

Drug delivery systems LI

(intraventricular, methods of stimulating axonal growth of CNS neurons antagonists in combination with growth factors) (NGR) using Nogo receptor

Adeno-associated virus

H

Adeno-associated virus 2 Alzheimer's disease

Central nervous system Gene therapy

Mammalia Nerve Nervous system agents Parkinson's disease

Protein sequences

Regeneration, animal

Signal transduction, biological

Spinal column, disease Spinal muscular atrophy

receptor (MyR) antagonists in combination with growth factors) Viral vectors (methods of atimulating

Interleukin 6 Неховев II

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (methods of stimulating axonal growth of CNS neurons using Nogo

II

(nasal; methods of stimulating axonal growth of CNS neurons using receptor (NgR) antagonists in combination with growth factors) Drug delivery systems

in combination with growth factors)

methods of stimulating axonal growth of CNS neurons

Nogo receptor (NgR) antagonists

(neuropathy, optic; Nerve, H

(oncomodulins; methods of stimulating axonal growth of CNS neurons RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) Proteine

antagonists in combination with growth factors)

(NgR)

using Nogo receptor

H

antagonists in combination with growth factors) using Nogo receptor (NgR)

Drug delivery systems (ophthalmic; methods of stimulating axonal growth of CNS neurons using Nogo receptor (NgR) antayonists H

H

in combination with growth factors)
Drug delivery systems
(oral; methods of stimulating axonal growth of CNS neurons using Nogo receptor (NgR) antagonists

in combination with growth factors) Paralysis

H.

(paraparesis, tropical spastic; methods of stimulating axonal growth of CNS neurons using Nogo receptor (NgR) antagonists in combination with growth factors)

Paralysis

ij

(paraplegia, spastic; methods of stimulating axonal growth of neurons using Nogo receptor (NgR)

CNS

antagonists in combination with growth factors) Drug delivery systems II

neurons using (parenterals; methods of stimulating axonal growth of CNS in combination with growth factors) Nogo receptor (NgR) antagonists

Nerve, disease

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(polyneuropathy; methods of stimulating axonal growth of CNS neurons

antagonists in combination with growth factors) using Nogo receptor (NgR)

H

CNS growth of stimulating axonal (progressive balbar; methods of s neurons using Nogo receptor (NgR) Paralysis

antagonists in combination with growth factors)

CNS ŏ (pseudobulbar; methods of stimulating axonal growth using Nogo receptor (NgR)

Paralysis

H

H

antagonists in combination with growth factors) Eye

CNS neurons

(retina, methods of stimulating axonal growth of Nogo receptor (NgR) antagonists in combination with growth factors)

H

neurons using axonal growth of CNS (spinal cord; methods of stimulating Nogo receptor (NgR) antagonists in combination with growth factors) Nogo receptor Injury

neurona growth of CNS Brain, disease (stroke; methods of stimulating axonal Nogo receptor (NgR) antagonists H

in combination with growth factors) Drug delivery systems

Ţ

(topical; methods of stimulating axonal growth of CNS neurons using Nogo receptor (NgR) antagonists in combination with growth factors)

Brain, disease

H

growth of CNS neurons using (trauma, methods of stimulating axonal in combination with growth factors) Nogo receptor (NgR) antagonists

Transforming growth factors H

 $(\beta-;$  methods of stimulating axonal growth of CNS neurons using (Oses) study); USES RL: THU (Therapeutic use); BIOL (Biological Nogo receptor (NgR) antagonists

in combination with growth factors) 58319-92-9P, ADP-ribosyltransferase

RL: BPN (Biosynthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) II

Ħ

Clostridium botulinum C3; methods of stimulating axonal growth of CNS neurons using Nogo receptor (HyR) antrogonists in combination with growth factors) 150811-10-8P 150811-11-9P 150811-12-0P 856266-29-0P RL: BPN (Biosynthetic preparation); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) Nogo receptor (Rattus)
RL: BPW (Blosynthetic preparation); PRP (Properties); THU (Therapeutic el. BDC) (Blological study); PREP (Preparation); USES (Uses) us) and acid sequence; methods of stimulating axonal growth of CNS Nogo receptor (NgR) antagonists in combination with growth factors) 856266-30-3P 856266-38-1P 856266-39-2P 856266-40-5P, 1-344-; methods of stimulating axonal growth of CNS neurons using receptor (Rattus) 856266-42-7P, 1-344-Nogo receptor (Rattus) 856266-43-8P, 1-310-Nogo receptor (Rattus) 856266-43-0P 856266-46-1P, 26-344-Nogo receptor (human) 856266-47-2P, 26-310-Nogo receptor (human) 856266-48-3P, 26-310-Nogo receptor (Rattus) 856266-48-3P, 27-314-Nogo receptor (Rattus) 856266-48-3P, 27-314-Nogo receptor (Rattus) 856266-48-7P, 27-310-856266-41-6P, 1-310-Nogo (Nogo receptor antagonist peptide neurons using Nogo receptor (NgR) Nogo receptor (human)

H

antagonists in combination with growth factors) 85686-44-91, 1055-1120-Protein Nogo A (human), N-terminal amidated, C-terminal acylated RL: PRP (Properties), THU (Therapeutic use); BIOL (Biological study); USES (amino acid sequence; methods of stimulating axonal growth of CNS neurons using Nogo receptor (NgR) antagon1sts in combination with growth factors) (UBea)

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(cAMP signaling; methods of stimulating axonal growth of CNS neurons 7440-70-2, Calcium, biological studies 9012-42-4, Adenylate cyclase RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses) Ħ

9036-21-9, CAMP phosphodiesterase 9040-59-9, 3',5'-Cyclic nucleotide RL: BUU (Biological use, unclassified); BIOL (Biological study); USES antagonists in combination with growth factors) phosphodiesterase H

using Nogo receptor (NgR)

(inhibitors, cAMP signaling; methods of stimulating axonal growth of CNS neurons using Nogo receptor (NgR) antagonists in combination with growth factors) (Uses)

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (intracellular; methods of stimulating axonal growth of CNS neurons antagonists in combination with growth factors) using Nogo receptor (NgR)

60-92-4, Cyclic AMP

E

H

(methods of stimulating axonal growth of CNS neurons using Nogo 508116-22-1, GENBANK AF532858 RL: BSU (Biological study, unclassified); PRP (Properties); BIOL receptor (NgR) antagonists in combination (Biological study)

with growth factors)
56-73-5, Glucose-6-phosphate 58-63-9, Inosine 3458-28-4, D-Mannose
9061-61-4, Nerve growth factor 19163-87-2, Gulose
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) H

(methods of stimulating axonal growth of CNS neurons using Nogo

receptor (NgR) antagonists in combination with growth factors)

856273-14-8 856273-15-9

H

(unclaimed nucleotide sequence, methods of stimulating axonal growth of CNS neurons using Nogo receptor antagonists RL: PRP (Properties)

in combination with growth factors)

L152 ANSWER 13 OF 36 HCAPLUS COPYRIGHT 2007 ACS on STN Reticulons and  $\beta$ -secretase 2006:266024 HCAPLUS 144:387731 ACCESSION NUMBER: DOCUMENT NUMBER: AUTHOR (S): TITLE:

Dep. Demyelinating Dis. Aging, Natl. Inst. Neurosci., National Center of Neurology and Psychiatry (NCNP), Araki, Wataru

CORPORATE SOURCE:

Kodaira, 187-8502, Japan Dementia Japan (2005), 19(3), 266-272 CODEN: DEJAFB; ISSN: 1342-646X Nippon Chiho Gakkai

PUBLISHER: LANGUAGE:

SOURCE:

Journal; General Review Japanese 23 Mar 2006 DOCUMENT TYPE:

pathol, feature of Alzheimer's disease (AD).  $\beta$ -Secretase cleavage of amyloid precursor protein (APP) is catalyzed by the membrane-bound aspartyl protease A review. Cerebral accumulation of amyloid  $\beta$  - protein (A $\beta$ ) is the main Entered STN: ED

BACE ( $\beta$ -site APP cleaving enzyme). Inhibition of BACE is one of the attractive therapputic approaches for AD. Recently, we and others identified Nogo-B (reticulon 4-B) and its homolog reticulon 3 as BACE-interacting membrane

proteins. These reticulon family proteins appear to neg. modulate  $A\beta$  production through phys. association with BACE. The role of reticulon proteins in the regulation of BACE function is discussed. 14-0 (Mammalian Pathological Biochemistry)

review reticulon secretase BACE Alzheimer disease Proteins ST

RL: BSU (Biological study, unclassified); PRP (Properties); BIOL
(Biological study) (Nogo; reticulons and \$\beta-secretase (BACE) in

amyloid \$P-protein accumulation in Alzheimer's disease)

RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (membrane, BACE-interacting, reticulon 3; reticulons and (Biological study) H

β-secretase (BACE) in amyloid β-protein accumulation in Alzheimer's disease)

Alzheimer's disease H

(reticulons and  $\beta$ -secretase (BACE) in amyloid  $\beta$ -Drug targets

RL: BSU (Biological study, unclassified); BIOL (Biological study) protein accumulation in Alzheimer's disease) Amyloid precursor proteins H

(reticulons and  $\beta\text{-secretase}$  (BACE) in amyloid  $\beta\text{-protein}$  accumulation in Alzheimer's

H

RL: BSU (Biological study, unclassified); BIOL (Biological study) (β-; reticulons and β-secretase (BACE) in amyloid Amyloid

|-protein accumulation in Alzheimer's
disease)

158736-49-3, β-Site APP cleaving enzyme RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)	(reticulons and $eta$ -secretase (BACE) in amyloid $eta$ -protein accumulation in Alzhcimer's disease)	HCAPLUS COPYRIGHT 2007 ACS on STN 2004:927061 HCAPLUS FULL-text	141:406109 Treatment of conditions involving amyloid	plaques Strittmatter, Stephen M.; Lee, Daniel H. S.; Li, Maissi	USA	PCT Int. Appl., 43 pp. CODEN: PIXXD2	Patent English	1 1
IT 158736-49-3, B-Site RL: BSU (Biological (Biological study)	(reticulons and protein accumul	F 36	TITLE:	Inventor (S):	PATENT ASSIGNEE(S):	SOURCE:	DOCUMENT TYPE: LANGUAGE:	FAMILY ACC. NUM. COUNT: PATENT INFORMATION:

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The invention provides methods for treating diseases involving aberrant amyloid- $\beta$  (A $\beta$ ) peptide deposition, including Alzheimer's Disease, by the administration of Nogo receptor antagonists. The invention also provides method for reducing levels of A $\beta$  peptide in a mammal by the administration of soluble Nogo receptor polypeptides Entered STN: 04 Nov 2004

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RL: BSU (Biological study, unclassified); BIOL (Biological study) (Nogo; treatment of conditions involving amyloid plaques) amyloid plaque Altheimer disease polypeptide Amyloid precursor proteins RL: BSU (Biological study, unclassified); BIOL (Biological study) (APP695; treatment of conditions involving amyloid plaques) RL: BSU (Biological study, unclassified); BIOL (Biological study) (lateral ventricle; treatment of conditions involving amyloid RL: BSU (Biological study, unclassified); BIOD (Biological study) Nogo receptor 1 (NgR1) binding protein Sp35 and therapeutic use for RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses) Protein and cDNA sequences of a novel human PAC (Pharmacological activity); THU (Therapeutic use); BIOL (β-; treatment of conditions involving amyloid plaques) 786653-00-7, HB 7E11 786653-17-6, HB 1H2 786653-18-7, HB 3G5 786653-21-2, HB 5B10 786553-25-6, HB 2F7 (injections; treatment of conditions involving amyloid (infusions, treatment of conditions involving amyloid (unclaimed protein sequence; treatment of conditions (treatment of conditions involving amyloid plagues) (treatment of conditions involving amyloid plaques) (treatment of conditions involving amyloid plaques) 783350-09-4 783350-10-7 783350-11-8 783350-12-9 783350-13-0, LDLASDDAELR 783350-14-1 (treatment of conditions involving amyloid plaques) HCAPLUS COPYRIGHT 2007 ACS on STN 2004:824033 HCAPLUS Full-text , LDALSDNAQLR 783350-15-2, LDALSDDAELR 783350-16-3, LDLSSDNAQLR 783350-17-4, LDLSSDEAELR 783350-18-5, DNAQLRVVDPTT 783350-19-6, DNAQLR 783350-20-9, ADLSDNAQLRVVDPTT 783350-21-0, LALSDNAQLRVVDPTT 783350-22-1, LDLSDNAALRVVDPTT 783350-23-2, LDLSDNAQLHVVDPTT 783350-24-3, LDLSDNAQLAVVDPTT 790777-25-2 79077-26-3 79077-27-4 790777-28-5 79077-30-9 (Biological study); USES (Uses) 141:290091 Section cross-reference(s): 3 involving amyloid plaques) Anti-Alzheimer's agents Central nervous system Drug delivery systems Drug delivery systems RL: PRP (Properties) Alzheimer's disease ICM A61K038-00 1-11 (Pharmacology) LIS2 ANSWER 15 OF 36 E. ACCESSION NUMBER: DOCUMENT NUMBER: TITLE: Signal peptides plaques) plaques) Receptors Amyloid Brain Human 11 H H H Ħ H II H ដូខ ST Ħ H

Tours of the state	menton diseases Mi, Sha; McCoy, John; Pepinsky, R. Blake; Lee, Daniel H. S.	NEE(S): Biogen Idec Ma Inc., USA PCT Int. Appl., 70 pp. CODEN: PIXXD2		English VUM. COUNT: 1		NO. KIND DATE APPLICATION NO. DATE	***************************************	085648 A2 20041007 WO 2004-US8323 20040317 <	085648 A3 20041118	AG, AL, AM, AT, AU,	FI, GB,	HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ,	LR, LS, LT, LU, LV, MA, MD, MG, MK,	NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY,	TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM,	BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM,	KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,	FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE,		U	A2	464 Al 20041007	Al 20041007 CA 2004-2519227	A2 20051221 E	BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC,	I, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU	008501 A 20060314 BR 2004-8501 20040317 <	A 20060705 CN	524370 T 20070830 JP 2006-507330 20040317 <	DNO4139 A 20070831 IN 2005-DN4139 20050914 <		004836 A 20051019 NO 2005-4836 20051019 <	פונט סטט מפטבשבע מטטר פון	US 2003-455/56P	US 2003-455/56F F 20030319 US 2003-480241P P 20030620
	INVENTOR(S):	PATENT ASSIGNEE(S): SOURCE:	TYPE:	LANGUAGE: FAMILY ACC. NUM. COUNT:	PAIENI INFORMALION:	PATENT NO.	1	WO 2004085648	WO 2004085648	AG, AL,	30, CR,	GH, GM,	LR, LS,	NZ, OM,	TJ, TM, TN,	GH, GM,	KG, KZ,	FI, FR,	TR, BF,	τ <u>ο</u>					BE, CH,	I, LT,	BR 2004008501	CN 1798840	JP 2007524370	IN 2005DN04139	US 2007059793	NO 2005004836	PRIORITY APPLN. INFO.:		

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The invention provides Sp15 polypeptides and fusion proteins thereof, Sp35 antibodies and antigen-binding fragments thereof and nucleic acids encoding the same. The invention also provides compns. comprising, and methods for making and using, such Sp35 antibodies, antigen-binding fragments thereof, Sp35 polypeptides and fusion proteins thereof.

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ICS C12N015-62, C12N015-63, C07K014-47, C07K016-18, A61K038-17, A61K039-395, A61K048-00
3-3 (Biochemical Genetics)

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Section cross-reference(s): 1, 6, 13 protein sequence human Nogo receptor binding Sp35

neuron disease ST

Nervous system, disease (Huntington's chorea, treatment of; protein and cDNA sequences of novel human Nogo receptor 1 (

NgR1) binding protein Sp35 and therapeutic use for

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RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study); PREP (Preparation) (LINGO, Sp15; protein and CDNA sequences of novel human Nogo receptor 1 (NGR1) binding protein Sp35 and RL: BSU (Biological study, unclassified); BIOL (Biological study) (fragments, Fc, fused with Sp35; protein and cDNA sequences of novel human Nogo receptor 1 (NgR1) binding Carbohydrates, biological studies
Polyoxyalkylenes, biological studies
Polyoxyalkylenes, biological studies
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(conjugated with protein Sp35; protein and CDNA sequences of novel human Nogo receptor 1 (NgR1) binding
protein Sp35 and therapeutic use for neuron diseases)
Polymers, biological studies
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(conjugates, with protein Sp35; protein and cDNA sequences of novel human Nogo receptor 1 (NgR1) binding
protein Sp35 and therapeutic use for neuron diseases)
Nervous system, disease Signal transduction, biological (NgR., inhibition of; protein and cDNA sequences of novel human Nogo receptor 1 (NgR.) binding protein 5p35 and therapeuric use for neuron diseases) RL: BSU (Biological study, unclassified); BIOL (Biological study) (Nogo; protein and cDNA sequences of novel human Nogo receptor 1 (NgR1) binding protein Sp35 and RL: BPN (Biosynthetic preparation); BIOL (Biological study); PREP RL: BSU (Biological study, unclassified); PRP (Properties); BIOL novel human Nogo receptor 1 (NgR1) binding protein Sp35 and therapeutic use for neuron diseases) (degeneration, treatment of; protein and cDNA sequences of Nervous system, disease (any openius of; protein and (any obtoblic lateral sclerosis, treatment of; protein and cDNA sequences of novel human Nogo receptor 1 (NGR1) binding protein Sp35 and therapeutic use for (Sp35; protein and cDNA sequences of novel human Nogo receptor 1 (NgR1) binding protein Sp35 and therapeutic use for neuron diseases) (Sp15; protein and cDNA sequences of novel human Hogo receptor 1 (NgR1) binding protein Sp15 and Nerve, disease (diabetic neuropathy, treatment of, protein and cDNA sequences of novel human Nogo receptor 1 (  $\rm NgR1)$  binding protein Sp35 and therapeutic use for therapeutic use for neuron diseases) therapeutic use for neuron diseases) therapeutic use for neuron diseases) Fusion proteins (chimeric proteins) Antibodies and Immunoglobulins neuron diseases) neuron diseases) (Biological study) (Preparation) Receptors H H H H E H H H H H

(injections, s.c.; protein and cDNA sequences of novel human Nogo receptor 1 (NgR1) binding protein Sp35

protein Sp35 and therapeutic use for neuron diseases)

Drug delivery systems

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RL: BSU (Biological study, unclassified); BIOL (Biological study) (serum, fused with Sp35; protein and cDNA sequences of novel human (intrathecal, subdural; protein and cDNA sequences of novel human Nogo receptor 1 (NgR1) binding protein Sp35 and therapeutic use for neuron diseases) (leucine-rich repeat; protein and cDNA sequences of novel human Nogo receptor 1 (NgR1) binding protein Sp35 and therapeutic use for neuron diseases) (optic nerve injury, treatment of; protein and cDNA sequences of novel human Nogo receptor 1 (NgR1) binding protein Sp35 and therapeutic use for neuron diseases) binding protein Sp35 and therapeutic use for neuron diseases) (parenterals; protein and cDNA sequences of novel human Nogo (ophthalmic, protein and cDNA sequences of novel human Nogo receptor 1 (NgR1) binding protein Sp35 and (outgrowth; protein and cDNA sequences of novel human Nogo (injury, treatment of; protein and cDNA sequences of novel (optic nerve, treatment of; protein and cDNA sequences of apinal cord, treatment of; protein and cDNA sequences of human Nogo receptor 1 (NgR1) binding protein Sp15 and therapeutic use for neuron diseases) (protein and cDNA sequences of novel human Nogoreceptor 1 (NgR1) binding protein Sp35 and Nogo receptor 1 (NgR1) binding protein Sp35 and therapeutic use for neuron diseases) receptor 1 (NgR1) binding protein Sp35 and receptor 1 (NgR1) binding protein Sp35 and and therapeutic use for neuron diseases) novel human Nogo receptor 1 (NgR1) Albumins, biological studies Repeat motifs (protein) Anti-Alzheimer's agents Antiparkinsonian agents Central nervous system Gene therapy Drug delivery systems Nervous system agents Protein sequences Drug delivery systems Drug delivery systems Spinal cord, disease Lentiviral vectors Human herpesvirus Molecular cloning Human herpesvirus Vaccinia virus cDNA sequences Baculoviridae Viral vectors Mammalia Injury H H H H Ħ H H H H H H

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binding protein Sp35 and therapeutic use for neuron diseases)

novel human Nogo receptor 1 (NgR1)

(treatment of; protein and cDNA sequences of novel human Nogo receptor 1 (NgR1) binding protein Sp35 and therapeutic use for neuron diseases) 762413-55-8DP, Protein Sp35 (human), subfragments are claimed RL: BPN (Biosynthetic preparation); BSU (Biological study), pREP (Properties); BIOL (Biological study); PREP (Preparation) (amino acid sequence; protein and cDNA sequences of novel human Nogo receptor 1 (NgR1) binding protein Sp35 and therapeutic use for neuron diseases) (unclaimed nucleotide sequence; protein and cDNA sequences of a novel (unclaimed sequence, protein and cDNA sequences of a novel human Nogo receptor 1 (NgR1) binding protein Sp35 and therapeutic use for neuron diseases) 762413-72-9 762413-77-4 762413-82-1 762413-87-6 (nucleotide sequence; protein and cDNA sequences of novel human Nogo receptor 1 (NgR1) binding protein Sp35 and therapeutic use for neuron diseases) RL: BSU (Biological study, unclassified); BIOL (Biological study) (Biological study) RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (conjugated with protein Sp35; protein and cDNA sequences of human Nogo receptor 1 (NgR1) binding (trauma, treatment of; protein and cDNA sequences of novel human Nogo receptor 1 (NgR1) binding (stroke, treatment of; protein and cDNA sequences of novel human Nogo receptor 1 (NgR1) binding RL: BSU (Biological study, unclassified); BIOL (Biological s (to Sp3; protein and cDNA sequences of novel human Nogo receptor 1 (NgF1) binding protein Sp15 and therapeuric use for neuron diseases) (topical: protein and cDNA sequences of novel human Nogoreceptor 1 (NgR1) binding protein 5p35 and protein Sp35 and therapeutic use for neuron diseases) 762273-69-8 762273-74-5 762413-66-1 762413-71-8 762413-76-3 762413-81-0 762413-86-5 762413-70-7 762413-75-2 762413-65-0 human Nogo receptor 1 (NgR1) binding 762273-73-4 762413-80-9 762413-85-4 762273-68-7 therapeutic use for neuron diseases) Central nervous system, disease Multiple sclerosis Antibodies and Immunoglobulins 762413-64-9 762413-79-6 762413-89-8 762273-67-6 762273-72-3 762413-69-4 762413-74-1 762413-84-3 Drug delivery systems RL: PRP (Properties) Alzheimer's disease Parkinson's disease (Biological study) 25322-68-3, Peg Brain, disease Brain, disease 762413-88-7 762413-68-3 762413-78-5 762413-83-2 H H H H LI H H H H H

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HCAPLUS COPYRIGHT 2007 ACS on STN 2004:142908 HCAPLUS FULL-text 140:198086 Nogo receptor antagonists for promoting survival of neuron and treating multiple sclerosis, CNS neuropathy, and traumatic brain or spinal cord injury Lee, Daniel H. S., Pepinsky, R. Blake; Li, Weiwei; Rabacchi, Sylvia A.; Relton, Jane K.; Worley, Dane S.; Strittmatter, Stephen M.; Sah, Dinah Y. W. Yale University, USA; Blogen, Inc. PCT INC. Appl., 133 pp. CODEN: PIXXD2 Patent English : 1	ND DATE APPLICATION NO. D	A2 20040219 WO 2003-US25004 20030807 <	20040429	, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH,	CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE,	, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, IV, IV, MA MD MG MK MK MX MZ NI NO NZ OM	PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM,	UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW	LS, FW, MZ, SD, SL, SZ, 12, UG, 2M, ZW, AZ, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE,	GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK,	0	AU 2003-2493121	20050601 EP 2003-785123 20030807	DE, DK, ES, FR, GB, GR, IT, LI, LU, NL,	LV, FI, KU, MN, CI, AL, IK, BG, CZ, EE, HU, A 20051012 CN 2003-821409 20	20051124 JP 2004-527960 20030807	20070724 BR 2003-13331 20030807	AI 20050224 AU 2004-264405 20040130 <	20050224 WQ 2004-US2702 20040130	A3 20060720	, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,	HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ,	LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA,	PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL,	IK, II, IZ, OA, OG, OS, OZ, VC, VN, IO, ZA, KE, LS, MW, MZ, SD, SL, SZ, IZ, UG, ZM, ZW,	MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,	GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK,	, CF, CG, CI, CM, GA, GN, GQ, GW, ME, MK, NE, SN, 1D, 1G A2 20060531 EP 2004-707073 20040130 <	DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,	A 20061017 BR 2004-13426 20040130	2007
APLUS COPYRIGH 2004:142908 H 140:198086 NOGO receptor For promoting multiple scler brain or spina Lee, Daniel H Rabacchi, Sylv Strittmatter, Yale Universit PCT Int. Appl. CODEN: PIXXD2 Petent Emglish				AT, AU,	CZ, DE, DK,	ID, IL, IN,	PT, RO, RU,	ug, us,	RU, TJ, TM,	GR, HU, IE,	IJ,			DE, DK,	A 2005:					20060	AT, AU,	HR, HU, ID,	LT, LU, LV,	PG, PH, PL,	KE, LS, MW,	MD, RU, TJ,	GR, HU,	20060	DE, DK, ES,	A 20061	
ACCESSION NUMBER: DOCUMENT NUMBER: TITLE:  INVENTOR(S): BATENT ASSIGNEE(S): SOURCE: DOCUMENT TYPE: LANGUAGE: FAMILY ACC. NUM. COUNT: PATENT INFORMATION:	Š	WO 2004014311	WO 2004014311	AG,	g S	GM, HR, HO,	E	TR, TT, TZ,	Κζ.	FR,	BF, BJ, CF				IE, 51, LE, CN 1681838			AU 2004264405			W: AE, AG, AL,	3 5	Ľ,	NO, NZ, OM,		BY, KG,	FI,	IR, BF, BU EP 1660517	R: AT, BE,		JP 2007501612

20040130 20050210 20050210 20050210 20050310 20060203 20060306	FORESTOR N 20030807 c 5525004 A 20030807 c 552702 M 20040130 c 6ptides, Nogo receptor-1 soluble Nogo receptors and ing the same. Also disclosed and using, such Nogo receptor d and chimeric antibodies eins thereof and nucleic acids apy. These Nogo receptor-1, more collapse of neuron, moting survival of CNS neuron presenting multiple sclerosis, macting of the collerosis, presenting multiple sclerosis, presenting multiples of clerosis, presenting multiples of clerosis, presenting multiples of clerosis,	injury.	aumatic utic use); BIOL sclerosis, injury)	sclerosis, injury) utic use); BIOL r-l aumatic
CN 2004-80029412 NO 2005-685 MX 2005-PA1615 US 2005-55163 IN 2005-PA182 MX 2006-PA184 NO 2006-DA161	TWO 2003-US25004 W 2003-US25004 W 20030807 c WO 2003-US25004 M 20030807 c WO 2003-US25004 M 20030807 c WO 2003-US2702 M 20040130 c Tare immunogenic Nogo receptor-1 polypeptides, Nogo receptor-1 is, antigen-binding fragments thereof, soluble Nogo receptors and other in thereof and nucleic acids encoding the same. Also disclosed is, antigen-binding fragments, humanized and chimeric antibodies soluble Nogo receptors is, antigen-binding fragments, humanized and chimeric antibodies soluble Nogo receptors and fusion proteins thereof and nucleic acids vector encoding the same for gene therapy. These Nogo receptor-1, its are useful for inhibiting growth cone collapse of neuron, in inhibition of neurite outgrowth, promoting survival of CNS neuron il growth, and are therefore useful for ribidian disease dishapses.	, 63  nt soluble fusion protein h Nogo receptor meric antibody go receptor-l survival of neuron and s, CNS neuropathy, and traumatic y) receptor-l survival of neuron and second	eatny, and tr THU (Therape ng multiple spinal cord	ng multiple spinal cord THU (Therape Nogo recepto Reuron and
10/553,669 A 20070307 A 20050510 A 2005021208 A 20060512 A 20060512 A 20060515 A 20060418 A 20070810	WO 2003-US31 WO 2003-US32 WO 2003-US33 WO 2003-US33 WO 2004-US22 Established Statements thereof, solimits thereof and nucleic acids encoding comprising, and methods for making and antigen-binding fragments, humanized a uble Nogo receptors and fusion protein are useful for inhibition of neurite outgrowth, promot inhibition of neurite outgrowth, promot invent, and are therefore useful for inhibition of neurite outgrowth, promot invent, and are therefore useful for inhibition of neurite outgrowth, promot invent, and are therefore useful for inhibition of neurite outgrowth, promot invent, and are therefore useful for inhibition of neurite outgrowth, and are therefore useful for inhibition of neurite outgrowth, and are therefore useful for inhibition of neurite outgrowth, and are therefore useful for inhibition of neurite outgrowth, and are therefore useful for inhibition of neurite outgrowth, and are therefore useful for inhibition of neurite outgrowth, and are therefore useful for inhibition of neurite outgrowth, and are therefore useful for inhibition of neurite outgrowth, and are therefore useful for inhibition of neurite outgrowth, and are therefore useful for inhibition of neurite outgrowth, and are therefore useful for inhibition of neurite outgrowth, and are therefore useful for inhibition of neurite outgrowth, and are therefore useful for inhibition of neurite outgrowth.	ropathy, stroke, traumatic brain injury or s AGIK  3 (Immunochemistry)  3 (Immunochemistry)  5 receptor antibody fragment soluble fusion is  5 receptor antibody fragment soluble fusion is  7 receptor antibody fragment on the indody  7 receptor antibody  8 re	treating multiple sciencess, CNS neurop brain or spinal cord injury) libodies and Immunoglobulins BSU (Biological study, unclassified); ological study); USES (Uses) (IgG; Nogo receptor-1 antagonists for promoting survival of neuron and treati promoting survival of neuron and treatin or CNS neuropathy, and traumatic brain or	tein motifs  Kirk, Nogo receptor-1 antagonists for promoting survival of neuron and treating mult  CNS neuropathy, and traumatic brain or spinal  coproteins  SNO (Belongical study, unclassified); THU (Th  slogical study); USES (USES)  (MAG (myelin-associated glycoprotein); Nogo re  trangonists for promoting survival of neuron a  treating multiple sclerosis, CNS neuropathy, a  brain or spinal cord injury)  tein motifs  (N-terminal domain, Nogo receptor-1
	ED Entered STN: 22 Feb 2004 BB Disclosed are immunogenic No matibodies, antigen-binding fusion proteins thereof and are compus. comprising, and antibodies, antigen-binding thereof, soluble Nogo recept or viral vector encoding the antagonists are useful for i decreasing inhibition of neum and axonal growth, and are the soluble soluble thereof.	neuropathy, stroke, traumatic brain injury or A61K ICM A61K Section cross-reference(s): 1, 63 Section cross-reference(s): 1, 63 Nogo receptor antibody fragment soluble fusic survival neuron; axonal growth Nogo receptor antagonist gene humanized chimeric antibody Protein motifs (C-terminal LRK domain; Nogo receptor-1 antagonists for promoting survival of neutreating multiple sclerosis, CNS neuropathy brain or spinal cord injury) Nervous system, disease Nervous system, disease Nervous system; disease nervous system; disease nervous system; disease nervous system; disease	treating multiple scierosas, brain or spinal cord injury) Antibodies and Immunoglobulins RL: BSU (Biological study, uncl. (Biological study); USES (Uses) (IgG, Nogo receptor-l antagod promoting survival of neuron CNS neuropathy, and traumati.	Protein motifs (LIRR, Mogo receptor-1 antago (LIRR, Mogo receptor-1 antago promoting survival of neuron CNS neuropathy, and traumati Glycoproteins RL: BSU (Biological study, uncl Biological study); USES (Uses) (MAG (myelin-associated glyc antagonists for promoting su treating multiple sclerosis; brain or spinial cord injury) Protein motifs (N-terminal domain; Nogo rec
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antagonists for promoting survival of neuron and treating multiple sclerosis, CNS neuropathy, and traumatic brain or spinal cord injury)

Alzheimer's disease

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Animal cell line

Animale

Central nervous system, disease

Culture media

Drugs

Gene therapy

Genetic vectors

Mammalia

Molecular cloning

Multiple sclerosis

Parkingon's disease

Protein sequences

Rodentia

Viral vectors

(Nogo receptor-1 antagonists for

promoting survival of neuron and treating multiple sclerosis, CNS neuropathy, and traumatic brain or spinal cord injury)

Antibodies and Immunoglobulins Antibodies and Immunoglobulins H

RL: BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(Nogo receptor-1 antagonists for promoting multiple sclerosis, promoting survival of neuron and treating multiple sclerosis, CNS neuropathy, and traumatic brain or spinal cord injury)

Fusion proteins (chimeric proteins) Nucleic acids RL: BSU (Biological Study, unclassified); THU (Therapeutic use); BIOL H

(Biological study); USES (Uses)

promoting survival of neuron and treating multiple sclerosis, CNS neuropathy, and traumatic brain or spinal cord injury)

(Nogo receptor-1 antagonists for

study, unclassified); THU (Therapeutic use); BIOL RL: BSU (Biological Dimers H

(Nogo receptor-1 fusion protein; Nogo USES (Uses) (Biological study);

receptor-1 antagoniats for promoting survival of neuron and treating multiple sclerosis, CNS neuropathy, and traumatic brain or spinal cord injury) Receptors

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RL: BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (Nogo, 1; Nogo receptor-1

antagonists for promoting survival of neuron and tranmatic treating multiple sclerosis, CNS neuropathy, and traumatic

brain or spinal cord injury) Receptors

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RL: BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(Nogo; Nogo receptor-1 antagonists for promoting survival of neuron and treating multiple sclerosis, CNS neuropathy, and traumatic brain or spinal cord injury)

Receptors TI

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unclassified); THU (Therapeutic use); BIOL (Uses) RL: BSU (Biological study, (Biological study); USES (1)

(NogoA; Nogo receptor-1

antagonists for promoting survival of neuron and treating multiple sclerosis, CNS neuropathy, and traumatic brain or spinal cord injury)

H

RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL

(nses) (NogoB; Nogo receptor-1 (Biological study); USES

treating multiple sclerosis, CNS neuropathy, and traumatic antagonists for promoting survival of neuron and

brain or spinal cord injury)

Ħ

RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(NogoC; Nogo receptor-1

antagonists for promoting survival of neuron and traumatic treating multiple sclerosis, CNS neuropathy, and traumatic brain or spinal cord injury)

Glycoproteins

IJ

RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL

(Biological study); USES (Uses)

(OMGP (oligodendrocyte myelin glycoprotein); Nogo receptor-1 antagonists for promoting survival of neuron and treating multiple sclerosis, CNS neuropathy, and traumatic brain or spinal cord injury)

Hybridoma

H

(PTA-4584-PTA-4588; Nogo receptor-1 antagonists for promoting survival of neuron and treating multiple sclerosis, CNS neuropathy, and traumatic

brain or spinal cord injury)

H

Nervous system, disease (any open system) day open system) that the care of any open system is an and antagonists for promoting survival of neuron and treating multiple sclerosis, CNS neuropathy, and traumatic

brain or spinal cord injury)

Biology

H

(cell, host; Nogo receptor-1 antagonists

for promoting survival of neuron and treating multiple sclerosis, CNS neuropathy, and traumatic brain or spinal cord injury)

Antibodies and Immunoglobulins

H

RL: BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(chimeric; Nogo receptor-1 antagonists for promoting survival of neuron and treating multiple sclerosis, CNS neuropathy, and traumatic brain or spinal cord injury)

Nerve, disease

II

(diabetic neuropathy, Nogo receptor-1 antagonists for promoting survival of neuron and treating multiple sclerosis, CNS neuropathy, and traumatic

brain or spinal cord injury) Antibodies and Immunoglobulins

H

RL: BSU (Biological study, unclassified); PRP (Properties); THU

(Therapeutic use); BIOL (Biological study); USES (Uses) (fragments; Nogo receptor-1 antagonists

for promoting survival of neuron and treating multiple sclerosis, CNS neuropathy, and traumatic brain or spinal cord injury) Antibodies and Immunoglobulins

RL: BSU (Biological study, unclassified); PRP (Properties); THU

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Therapeutic use); BIOL (Biological study); USES (Uses)

sclerosis, CNS neuropathy, and traumatic brain or spinal cord injury) sclerosis, CNS neuropathy, and traumatic brain or spinal cord injury) RL: BSU (Biological study, unclassified); PRP (Properties); THU RL: BSU (Biological study, unclassified); PRP (Properties); (Therapeutic use); BIOL (Biological study); USES (Uses) (heavy chain, Nogo receptor-1 antagonists for promoting survival of neuron and treating multiple for promoting survival of neuron and treating multiple (Therapeutic use); BIOL (Biological study); USES (Uses) (humanized, Nogo receptor-1 antagonists Antibodies and Immunoglobulins Antibodies and Immunoglobulins II H

brain or apinal cord injury) Drug delivery systems

H

treating multiple sclerosis, CNS neuropathy, and traumatic

(immunoadhesins; Nogo receptor-1 antagonists for promoting survival of neuron and

antagonists for promoting survival of neuron and traumatic treating multiple sclerosis, CNS neuropathy, and traumatic (immunoconjugates; Nogo receptor-1 brain or spinal cord injury)

H

sclerosis, CNS neuropathy, and traumatic brain or spinal cord injury) for promoting survival of neuron and treating multiple (inhibition; Nogo receptor-1 antagonists

(injury, inhibition; Nogo receptor-1

H

antagonists for promoting survival of neuron and traumatic treating multiple sclerosis, CNS neuropathy, and traumatic brain or apinal cord injury) promoting survival of neuron and treating multiple sclerosis, CNS neuropathy, and traumatic brain or spinal cord injury) Proteins H

(injury; Nogo receptor-1 antagonists for

Spinal cord, disease

H

RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL treating multiple sclerosis, CNS neuropathy, and traumatic antagonists for promoting survival of neuron and (Biological study); USES (Uses)
(leucine-rich repeat; Nogo receptor-1 brain or spinal cord injury)

Antibodies and Immunoglobulins RL: BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (light chain, Nogo receptor-1 antagonists H

for promoting survival of neuron and treating multiple ocleropis, CNS neuropathy, and traumatic brain or spinal cord injury) Antibodies and Immunoglobulins

H

sclerodis, CNS neuropathy, and traumatic brain or spinal cord injury) RL: BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (monoclonal; Nogo receptor-l antagonists for promoting survival of neuron and treating multiple

antagoniets for promoting survival of neuron and traumatic treating multiple sclerosis, CNS neuropathy, and traumatic inhibition; Nogo receptor-1 Cell death

H

brain or spinal cord injury) Central H

(neuron; Nogo receptor-1 antagonists for promoting survival of neuron and treating multiple sclerosis, CNS neuropathy, and traumatic brain or spinal cord injury)

H

(neuronal, inhibition; Nogo receptor-1 antagonists for promoting survival of neuron and treating multiple sclerosis, CNS neuropathy, and traumatic brain or spinal cord injury)

Ħ

(outgrowth, promotion, Nogo receptor-1

RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL treating multiple sclerosis, CNS neuropathy, and traumatic brain or spinal cord injury) antagonists for promoting survival of neuron and (Biological study); USES (Uses) Genetic element

T.

(signal sequence; Nogo receptor-1 antagonists for promoting survival of neuron and

treating multiple sclerosis, CNS neuropathy, and traumatic brain or spinal cord injury)

Injury H

H

H

for promoting survival of neuron and treating multiple sclerosis, CNS neuropathy, and traumatic brain or spinal cord injury) (spinal cord; Nogo receptor-1 antagonists

promoting survival of neuron and treating multiple sclerosis, CNS neuropathy, and traumatic brain or spinal cord injury) Brain, disease (stroke, Nogo receptor-1 antagonists for Brain, disease

promoting survival of neuron and treating multiple sclerosis, CNS neuropathy, and traumatic brain or spinal cord injury) (trauma; Nogo receptor-1 antagonists for

unclassified); THU (Therapeutic use); BIOL ('Nogo receptor-1; Nogo receptor (Biological study); USES (Uses) Ligands RL: BSU (Biological study, H

427799-82-4, GenBank AF462190 RL: BSU (Biological study, unclassified); PRP (Properties); BIOL -1 antagonists for promoting survival of neuron and treating multiple sclerosis, CNS neuropathy, and traumatic orain or spinal cord injury)

H

(Nogo receptor-1 antagonists for (Biological study)

662152-37-6 662152-42-3 promoting survival of neuron and treating multiple sclerosis, CNS neuropathy, and traumatic brain or spinal cord injury) (152-33-2 662152-34-3 662152-35-4 662152-36-5 unclassified); PRP (Properties); THU 662152-41-2 662152-38-7 662152-39-8 662152-40-1 RL: BSU (Biological study, 662377-04-0 662377-03-9 662152-33-2 H

promoting survival of neuron and treating multiple sclerosis, CNS neuropathy, and traumatic brain or spinal cord injury) (Therapeutic use); BIOL (Biological study); USES (Uses) 662384-33-0P, 1-344-Nogo receptor 1 (human) 662384-34-1P, 1-310-Nogo receptor 1 (human) (Nogo receptor-1 antagonists for H

662384-37-4P 662384-38-5P 662384-39-6P 663232-46-0P RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); 662384-36-3P, 1-310-Nogo receptor 1 (rat) 662384-37-4P 662384-38-5P 662384-39-6

662384-35-2P, 1-344-Nogo receptor 1 (rat)

PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP treating multiple sclerosis, CNS neuropathy, and traumatic brain or spinal cord injury) 662185-15-1 662185-16-2 662185-17-3 (unclaimed nucleotide sequence; nogo receptor antantagonists for promoting survival of neuron and treating multiple sclerosis, CNS neuropathy, and traumatic (unclaimed sequence; nogo receptor antagonists for promoting survival of neuron and traumatic trenting multiple sclerosis, CNS neuropathy, and traumatic antagonists for promoting survival of neuron and 2004:41639 HCAPLUS Full-text (Preparation); USES (UBes)
(amino acid sequence; Nogo receptor-1 brain or spinal cord injury) brain or spinal cord injury) 140:106543 RL: PRP (Properties) RL: PRP (Properties) 662397-79-7

H

H

Orita, Satoshi; Shimazaki, Atsuyuki; Yanagimoto, Toru; Nakajima, Masatoshi; Oshima, Takeo Shionogi & Co., Ltd., Japan PCT Int. Appl., 100 pp.
CODEN: PIXXD2 Nogo receptor homolog protein 39C7 from human and rat and diagnostic, and therapoutic uses for diabetes and LIS2 ANSWER 17 OF 36 HCAPLUS COPYRIGHT 2007 ACS on STN neurodegenerative diseases Japanese Patent FAMILY ACC. NUM. COUNT: PATENT INFORMATION: PATENT ASSIGNEE (S): ACCESSION NUMBER: DOCUMENT NUMBER: TITLE: DOCUMENT TYPE: INVENTOR(S): LANGUAGE: SOURCE:

20030703 <--20030703 <--AZ, BY, EE, ES, SK, TR, TD, TG S E S E 20030703 . E T O L Ä, SI, SN Ø ZW, DE, SE, NE, BZ, LC, TJ, BR, BY, ES, FI, KR, KZ, MZ, NI, SL, SY, ZM, ZW UG, ZM, CY, CZ, PT, RO, ML, MR, AU 2003-246254 JP 2002-197188 WO 2003-JP8469 APPLICATION NO. WO 2003-JP8469 EC, KE, YU, YU, MC, MC, BB, SE, EE, SE, Ř SE, Š IE, IT, CM, GA, 20040123 0040115 SD, VC, SD, AU, NG, SC, UZ, TM, AT, RU, US, 5,8,9 Ã, KIND PRIORITY APPLN. INFO.: KG, KZ, I FI, FR, BF, BJ, AE, AG, CR, LT, LU, TT, TZ, CH, CM, CM, WO 2004005510 AU 2003246254 PATENT NO. RH :

Entered STN: 18 Jan 2004 A E

This invention provides a novel protein 19C7 from human and rat, which has sequence homo!. With Nogo receptor (NgR) family, encoding DNN, trecombinant expression, and drug screening, diagnostic, and therapeutic uses. A rat cDNA clone 39C7 coding for a Nogo receptor-like protein and a human homolog, were cloned. 19C7 showed elevated expression in the skeletal muscle of a diabetes model Zucker fatty rat having a restricted diet and taking exercises, upon improvement in insulin resistance. In a cell line overexpressing human 39C7

glucose uptake was increased independent of insulin concentration. The protein is useful as a diagnostic marker and a remedy for diabetes. Since this polypeptide is expressed most strongly in the cerebral cortex in the brain, it is also useful as a marker and a remedy for neurodegenerative diseases such as RL: ARU (Analytical role, unclassified); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); DGN (Diagnostic use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); PREP AOIKO67-027; A61K031-7088; A61K038-17; A61K039-395; A61K048-00; A61P003-10; A61P025-16; A61P025-28; C07K014-705; C07K016-28; C12P021-02; C12Q001-68; G01N033-15; G01N033-50; G01N033-59; G01N033-56 RL: BSU (Biological study, unclassified); BIOL (Biological study) (Nogo; Nogo receptor homolog protein 39C7 from human and rat and diagnostic, and therapeutic uses for (cerebral cortex, strong expression in; Nogo receptor homolog protein 39C7 from human and rat and diagnostic, and therapeutic uses for diabetes and neurodegenerative diseases) (degeneration; Nogo receptor homolog protein 39C7 from human and rat and diagnostic, and therapeutic uses for (Nogo receptor homolog protein 19C7 from human and rat and diagnostic, and therapeutic uses for diabetes and neurodegenerative diseases) (39C7, Nogo receptor homolog protein 39C7 from human and rat and diagnostic, and therapeutic uses for diabetes and neurodegenerative diseases) (LRR (leucine-rich repeat), presence of; Nogo receptor homolog protein 39C7 from human and rat and diagnostic, and therapeutic uses for diabetes and neurodegenerative diseases) (diabetes model rat with, elevated expression in; Nog receptor homolog protein 39C7 from human and rat and diagnostic, and therapeutic uses for diabetes and Section cross-reference(s): 6, 14 cDNA sequence Nogo receptor homolog 39C7 human rat; diabetes neurodegenerative disease diagnosis therapy diabetes and neurodegenerative diseases) diabetes and neurodegenerative diseases) 3-3 (Biochemical Genetics) (Preparation); USES (Uses) Nervous system, disease Repeat motifs (protein) Nervous system agents Alzheimer's disease. ICM C12N015-09 ICS A01K067-027; A61 Antidiabetic agents Diabetes mellitus Molecular cloning Protein sequences CDNA sequences Biomarkers Receptors Proteins Rattus Brain H ü H H H H H ပ္ပ ST LI

(diabetes; Nogo receptor homolog protein 39C7 from

neurodegenerative diseases)

Disease models

II

10/553,669

INVER	INVENTOR(S): PATENT ASSIGNEE(S):	Filbin, USA	darie '	Domenico
SOURCE: DOCUMEN LANGUAG FAMILY PATENT	SOURCE: DOCUMENT TYPE: LANGUAGE: FAMILY ACC. NUM. COUNT: PATENT INFORMATION:	U.S. Pat. App CODEN: USXXCO Patent English 1	t. Appl.	Publ., 81 pp.
		_	DATE	TION NO.
	US 2004121341	A1	20040624	US 2002-327213 20021220
			20040715	2003-2510297 20031219
	WO 2004058169 WO 2004058169	A2	20040715	WO 2003-US40740 20031219 <
	W: AE, AG,		AU, AZ,	BG, BR, BW, BY, BZ,
	8			DZ, EC, EE, EG, ES, FI, GB,
	GE, GH, GM, LK, LR, LS,	HR, HG, LT, LG,	υ, Τ, Β, Η	IN, IS, JP, KE, KG, KP, KR, KZ, LC, MD, MG, MK, MN, MW, MX, MZ, NI, NO,
	O W			SC, SD, SE, SG, SK, SL, SY,
	TM, TN, TR,	TT, TZ,	UA, UG,	US, UZ, VC, VN, YU, ZA, ZM, ZW
	BY, KG,			BE, BG, CH, CY, CZ, DE, DK,
	FI,			LU, MC, NL, PT, RO, SE, SI, SK,
		3	C1, CM,	1, GO, GW, ML, MK, NE, SN, ID,
	AU 2003299756 EP 1644016	A2	20040/22	
	R: AT, BE,	DK,	ES, FR,	GR, IT, LI, LU, NL, SE, MC, PT,
	, SI,	RO, CY,	TR, BG,	c, HU, SK
PRIO	PRIORITY APPLN. INFO.:			US 2002-327213 A 20021220 <
ED	Entered STN: 25 Jun 2004	2004		
AB	The present invention	on relat	es gener	U
	useful for promoting neural repair and regeneration.	g neural	repair	The products and
	of this invention in	nclude n	yelin-as	sociated glycoprotein (MAG) derivs, that
	are inhibitors of el	ndogenou	is MAG (e	are inhibitors of endogenous MAG (e.g., mutant MAG proteins) and Nogo Receptor
	that can bind to Ng	o pue	ock Non	signaling Pentides that can bind and
	activate NqR signaling are also provided.	ing are	also pro	Inhibitory MAG derivs. and
	binding inhibitors	are usef	ul for b	inhibitors are useful for blocking the inhibition of neural
	-	ed by pr	oteins s	uch as MAG, Nogo and/or OMgp in the nervous
	system. These inhibitors are also useful for tr	oltors a	re also	are also useful for treating neural degeneration
IC	ICM C120001-68	, (651 18	1 20 100 1	
,	ICS C07H021-04; C07	C07K014-47		
INCL	435006000; 435069	, 43532	0100, 43	5325000, 530395000, 536023500
ပ္ပ	1-11 (Pharmacology)			
II				
	RL: BSU (Biological Study, unclassified); Blub (Noco Noco recentor binding inhibitors.	study,	unclassi	fied); blow (blological study)
	inhibitors of mys	1in-ass	oriated .	(NOGO, NOGO receptor-binding inmibitors; inhibitors of mvelin-associated disconnotein (MAG) activity for regulating
	neural growth and	regene	ration)	
II	Alzheimer's disease			
	Aneurysm			
	Anti-Alzheimer's agents	nts		
	Antiparkinsonian agents	ints		
	Drug delivery systems Multiple scherosis	D.		
	Nerve receneration			

L152 ANSWER 18 OF 36 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2004:513137 HCAPLUS FULL-text
DOCUMENT NUMBER: 141:47360
TITLE: activity for regulating neural growth and regeneration

Antigen-presenting cells for neuroprotection and nerve 20030612 <--BE, ES, SK, TR, TD, TG 3 & F BY, 3 g GD, GE, CH, LC, LK, 1 TN, TX, 1 TR, AM, AZ, I DK, EE, I Protein sequences (inhibitors of myelin-associated glycoprotein (MAG) activity for DATE regeneration
Eisenbach-Schwartz, Michal; Cohen, Avraham
Yeda Research and Development Co. Ltd., Israel
PCT Int. Appl., 72 pp.
CODEN: PIXXD2
Patent
English BZ, KZ, NI, ZW, DE, SE, NE, 72, APPLICATION NO. WO 2003-IL500 SK, SL, ZW ZW, TZ, UG, ZW CH, CY, C on STN regulating neural growth and regeneration) COPYRIGHT 2007 ACS MK, MN, SE, SG, YU, ZA, SL, SZ, BE, BG, LU, MC, GO, GO, 2003:1006693 HCAPLUS 20031224 Ŝ, AZ, SC, E 140:58448 HCAPLUS KIND A2 AM, AM, ID, ID, IV, RO, US, US, GR, GR, Nervous system agents Parkinson's disease Prion diseases 495446869 FAMILY ACC. NUM. COUNT: ANSWER 19 OF 36 AE, AG, CO, CR, GM, HR, LS, LT, TZ, UA, GH, GM, KG, KZ, FI, FR, PATENT ASSIGNEE(S): PATENT INFORMATION: WO 2003105750 WO 2003105750 ACCESSION NUMBER: DOCUMENT NUMBER: PATENT NO. DOCUMENT TYPE: INVENTOR (S): LANGUAGE: SOURCE:

Entered STN: 26 Dec 2003 AB ED

PRIORITY APPLN, INFO.:

CN 1705438 JP 2006503808 US 2006057110

treatment of an injury, disorder or disease of the CNS or PNS. The treatment comprises antigen-presenting cells, preferably dendritic cells, that have been pulsed with an agent selected from the group consisting of: (a) a nervous system (NS)-specific antigen or an analog thereof; (b) a peptide or altered The authors disclose pharmaceutical compus, and methods for preventing or inhibiting neuronal degeneration, or for promoting nerve regeneration, in the central nervous system (CNS) or peripheral nervous system (PNS), in the from the group consisting of Copolymer 1, a Copolymer 1-related peptide or polypeptide, and poly-Glu50 Tyr50; and (d) a non-self antigen. In one example, local implantation of bone marrow-derived dendritic cells exposed to peptide ligand derived from an NS-specific antigen; (c) a copolymer selected MBP peptide promoted functional recovery in a spinal cord contusion model

15-8 (Immunochemistry)

Section cross-reference(s): 1, 2, 14

Receptors

H

BACE1 regulation by RTN3 and RTN4 and methods for drug 20030408 20030408 GE, GH, LK, LR, OM, PH, TT, TZ, AM, AZ, BY, DK, EE, ES, SI, SK, TR, SN, TD, TG SE, MC, PT, 20030408 20030408 20030408 RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  $(\beta \text{--}; \text{ with antigen-presenting cells for elicitation of } T\text{-cell-dependent neuroprotection and nerve regeneration in nervous}$ RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses) HO, NZ, Š Peripheral nervous system, disease (antigen-presenting cells for elicitation of antigen- and T-cell-dependent neuroprotection and nerve regeneration in) (Nogo; with antigen-presenting cells for elicitation of T-cell-dependent neuroprotection and nerve regeneration in ZW, DE, SE, NE, 82, KZ, TN, NL, EE, UG, ZM, CY, CZ, PT, RO, ML, MR, CA 2003-2482589 AU 2003-223330 US 2003-408967 EP 2003-719447 BR, BY, ES, FI, KP, KR, MX, MZ, TJ, TM, GR, IT, LI, LU, AL, TR, BG, CZ, screening and treating amyloidoses Yan, Riqiang; Lu, Yifeng Pharmacia & Upjohn Company, USA JP 2003-585679 BR 2003-9110 APPLICATION NO 2003-US8829 PT, L152 ANSWER 20 OF 36 HCAPLUS COPYRIGHT 2007 ACS on STN ACCESSION NUMBER: 2003:855771 HCAPLUS Full-text F 2 SI, SI, CH, Ž, SK, ZM, SZ, BG, ဂို ဗွ õ PCT Int. Appl., 44 pp. CODEN: PIXXD2 ES, FR, GB, 20040401 20060105 20070508 AZ, DM, IS, MG, YU, YU, SD, AT, IT, GA, 20031030 20031030 20031103 G E IN, MD, VN, VN, Central nervous system, disease 139:345937 Oxidative stress, biological SC, VC, U DK, English A T B Y Patent KIND AM, CCZ, LV, LV, UZ, CG, CG, CG, A11 A11 A21 LV, ¥2 Parkinson's disease Alzheimer's disease 9 5 FAMILY ACC. NUM. COUNT: Glaucoma (disease) system injury) system injury) AE, AG, CO, CR, GM, HR, LS, LT, UA, UG, GH, GM, KG, KZ, FI, FR, AT, BE, CA 2482589 AU 2003223330 US 2004063161 EP 1575482 PATENT ASSIGNEE (S): PATENT INFORMATION: WO 2003088926 2006500006 2003009110 DOCUMENT NUMBER: PATENT NO. DOCUMENT TYPE: Epilepsy RW: Amnesia Anxiety Amyloid INVENTOR (S): LANGUAGE: SR BR SOURCE: II Ħ

20030612 <--

CA 2003-2488855 AU 2003-231909 EP 2003-760117

20031231 20050928

A1 A2 DE, LV,

R: AT, BE, CH, IE, SI, LT,

CA 2488855 AU 2003231909 EP 1578199

20031224

20030612 <--

20030612 <--20041213 <--20020614 <--W 20030612 <--

, GB, GR, IT, LI, LU, N CY, AL, TR, BG, CZ, E 7 CN 2003-819321 2 JP 2004-512658 6 US 2004-517666 US 2003-11500

20051207 20060202 20060316 DK, ES, FR, FI, RO, MK,

NL, SE, MC, PT, EE, HU, SK

10/553 660

10/53,669   10/53,669   10/53,669   10/53,669   10/53,669   10/53,669   10/53,669   10/53,689   10/53,069   10/5	> 6260	, , ,		er's Disease	ty, and	e and other	ng that RTN3	e invention	imais by	r activity of	seguence and	leotide	king the	in vitro or in	or activity	ne activity nolvmentide	the		-									PRP				1000	9999															
Horsey British R 2005517 MX 2004-PA9498  BRITA APPLM. INFO.:  US 2002-372849  BRITA APPLM. INFO.:  US 2002-372849  The invention relates to compone. and methods for treating and other amyloidoses, to polypeptides that modulate BACI methodose. This invention is based, in part, on the nor or KTN4 modulates the activity of BACEI. Thus, in one and other amyloidoses. This invention is based in part, on the nor or KTN4 modulates the activity of BACEI. Thus, in one and method of method of modulating BACEI activity is a human administration of one or more agents that affect the expendence encoding the recombinant polypeptides are also included. Also included of BACEI where the sequence encoding the recombinant polypeptides are also included. Also included of BACEI where the said agents are asso included. Also included of BACEI where the said agents are exogenous RTN3 or STN4 or STN4 or 20 the activity of BACEI, agents but accombinant polypeptides of the invention, and agents the accombinant polypeptides of the invention, and agents the AND or ACT of the activity of EACEI, agents where the said agents are exogenous RTN3 or RTN4.  Althermacology) Section cross-reference(8): 3  BUTLIANIZHERMEY'S disease treatment KTN3 RTN4  Althermey's disease treatment with polypeptides modulating BACEI activity)  Althermey's disease treatment with polypeptides modulating BACEI activity)  Althermey's modulators of expression of; Alzheimer's disease treatment with polypeptides modulating BACEI activity)  Animal cell line  Animal cell with polypeptides modulating BACEI activity)  Animal cell line		D. 32	:	treating Alzheim	late BACEl activi	lzheimer's Diseas	n the novel findin	in one aspect, the	orwans and an	the expression of	derived from RTN3	of RTN3, polynuc	and method of mal	o included are in	the expression	ents modulating the	Jents that affect								tz a	9	٠	ic preparation);	ical study); BIOL	ís.		otuda), mese	disease	ct1v1ty/		zheimer's Racel	1000		ment		ctivity)		with	;	disease			ctivity)
Entered STN: 11 Oct 2003  Bentered STN: 11 Oct 2003  The invention relates to compns and other amyloidoses. to polygomethods to identify agents for amyloidoses. This invention is love the state of modulating administration of am exogenous is administration of an exogenous administration of one or more deministration of one or more function or sequences encoding the recombinate polygeptides are all vivo methods to identify agents of RRM3 or RTM4 or (2) the action of BACE1 where the said agents of RATM3 or RTM4 or (2) the action of BACE1 where the said agents of RATM3 or RTM4 or (2) the action of BACE1 where the said agents of RATM3 or RTM4 or (2) the action of BACE1 where the said agents are all phases or all the said agents of RATM3 or RTM4 or (2) the action of BACE1 where the said agents of RATM3 or RTM4 or (3) the action of BACE1 where the said agents are all phases or amyloidosis Alzheimer's disease treatmen modulating BACE1 activity)  Proteins  Rui ARG (Analytical reagent use) (RTM3, Malytical reagent use) (RTM3, Malytical reagent use) (RTM3, modulators of expressing bolypeptides modulating BACE1 activity)  Brain, disease treatment with polypeptides mand itissue culture (RTM3/RTM4-expressing, drug s disease treatment with polypeptides mandiodosis (inclusion body, sporadic; all treatment with polypeptides mandiodosis (inhibitors of; Alzheimer's disease (amyloidosis polypeptides modulating BACE1 (inhibitors of; Alzheimer's disease delinial suboosis associations volt bolyperides modulating BACE1 with RTM3/RTM4 prote	×	S Q		, and methods for	eptides that modul	se in treating Al	based, in part, or	or BACEl. Thus, 1	MACEL ACTIVITY IN	nents of exogenous	eptides that are c	biol. activities	ant polypeptides,	so included. Also	that modulate (1)	ore exogenous RTN3	invention, and ag	enous RTN3 or RTN4			eatment RTN3 RTN4				r with nolvnentid	nation boakbelers		; BPN (Biosynthet	se); ANST (Analyt	acion); USES (UBE) eatment with	activity)	. AMET (heal set ice	on of, Alzheimer's	odulating BACEL a		creening with; Al	5		r's disease treatr BACEl activity)		zheimer's disease odulatinq BACEl a	,	atment	. :				
Entered STN: 11 The invention read and other amyloidones. This and other amyloidones. This may loidones. This may loidones. This may loidones. This may loidones a method to car RTN3 or RTN3		:	2003	Oct 2003	doses, to polype	cify agents for t	is invention is b	se the activity o	od or modulating	of one or more ac	or RTN4. Polype	nore function or	ing the recombina	peptides are als	identify agents	or (z) the activ	peptides of the	ctivity of endoge	9y)			ase	agents		disease treatmen	CEI activity	datatan tan	cal reagent use)	U (Therapeutic u	y); FREF (FIEDAL) mer's disease tr	modulating BACE1	(app. tropped (ap	tors of expression	n polypeptides m		pressing, drug soment with nolvne	halfred mark aman		opathy; Alzheime: ides modulating 1		dy, sporadic; Al: h polypeptides m		f; Alzheimer's d: modulating BACE1	ation	h RTN3/RTN4 prot			
		RITY APPLN. INFO.		The invention re	and other amylo	methods to iden	amyloidoses. Th.	or Kine modulati	provides a metho	administration	endogenous RTN3	possess one or t	sequences encod	recombinant poly	vivo methods to	of BACE1 where t	recombinant pol	expression or ac	1-11 (Pharmacolo	Section cross-re	amyloidosis Alzh BACE1	Alzheimer's dise	Anti-Alzheimer's	Drug screening	Auman (Alaheimer's	modulating BA	Proteins		(Properties); TH	(Nogo; Alzhei	polypeptides	Gene, animal	(RTN3, modula	Animal cell line	Animal tissue cu	GRTN3/RTN4-ex	activity)	Brain, digease	(amyloid angi	Myositis	treatment wit	Amyloidosis	(inhibitors o	Molecular associ	BACEL	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	trearment wit	

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618464-17-8P, Reticulon (human gene RTN3) 618472-87-0P, Nogo protein (human gene RTN4 isoform B) 618472-88-1P, Nogo protein (human gene RTN4 RL: ARG (Analytical reagent use); BPN (Biosynthetic preparation); PRP (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses) (reticulon RTN3; Alzheimer's disease treatment with RL: BPN (Biosynthetic preparation); BIOL (Biological study); PREP RL: BSU (Biological study, unclassified); BIOL (Biological study) (Alzheimer's disease treatment with polypeptides  $(\beta^{}_{-},\ modulators$  of production of; Alzheimer's disease treatment with polypeptides modulating BACE1 activity) 158736-49-3, Proteinase BACE1 (of RTN3/RTN4 genes; Alzheimer's disease treatment with polypeptides modulating BACE1 activity) polypeptides modulating BACE1 activity) modulating BACE1 activity)
464-17-8P, Reticulon (human gene RTN3) 618464-17-8P, (Preparation) isoform C) Proteins Amyloid II H H II

KL: ARG (Analytical reagent use); BPN (Biosynthetic preparation); PRP (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses) (amino acid sequence; Alzheimer's disease treatment with polypeptides modulating BACE1 activity)

RL: ARG (Analytical reagent use); BPN (Biosynthetic preparation); PRP (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study), PREP (Preparation), USES (Uses) (nucleotide sequence, Alzheimer's disease treatment Ħ

618464-16-7, DNA (human gene RTN3 reticulon cDNA) RL: BUU (Biological use, unclassified); PRP (Properties); BIOL (Biological with polypeptides modulating BACE1 activity) study); USES (Uses) H

and (unclaimed nucleotide sequence, bACE1 regulation by RTN3 and RTN4 methods for drug screening and treating amyloidoses) (nucleotide sequence; Alzheimer's disease treatment with polypeptides modulating BACE1 activity) 618519-08-7 618519-10-1 RL: PRP (Properties) 618519-07-6 H

(unclaimed protein sequence; bACE1 regulation by RTN3 and RTN4 and methods for drug screening and treating amyloidoses) RL: PRP (Properties) 618519-09-8 H

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DOCUMENT NUMBER:
TITLE:

Mei; Casman, Stacie J.; Gerlach, Valerie L.; Shimkets, Richard A.; Gorman, Linda; Pena, Carol E. A.; Kekuda, Ramesh; Patturajan, Meera; Spytek, Kimberly A.; Leite, Anderson, David W.; Zerhusen, Bryan D.; Li, Li; Zhong Mario W.; Rastelli, Luca; MacDougall, John R.; Tampier, Raymond J., Jr.; Guo, Xiaojia; Miller, Carales E.; Shenoy, Suresh G.; Hjalt, Tord; Voss, Edward Z.; Boldog, Perenc L.; Malyankar, Uriel M.; cancers INVENTOR(S):

Human NOVX polypeptides, polynucleotides and antibodies for diagnosis, prognosis and therapy of NOVX-associated disorders and

PATENT ASSIGNEE (S):	Padigaru, Muralidhara; Ji, Weizhen; Smithson, Glennda; Edinger, Shlomit R.; Millet, Isabelle; Ellerman, Karen Curacen Corboration. USA
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APPLICATION NO.	 WO 2002-US17559	BA BB BG BB BY BZ	EC. EE, ES, FI, GB,	KE, KG, KP, KR, KZ,	MN, MW, MX, MZ, NO,	SK, SL, TJ, TM, TN,	. MZ	SZ, TZ, UG, ZM, ZW,	IE, IT, LU, MC, NL,	R, NE,	US 2002-161493	CA 2002-2447935	AU 2002-303960	SP 2002-732027	GR, IT, LI, LU, NL,	CY, AL, TR	JF 2003-5021/2	/ T#Z - 900 2 - 43	GB. GR. IT. LI. LU. NL. S		AU 2005-200106		US 2005-64246	AU 2006-201467	AU 2007-202935		2001-296404P	2001-296418P	2001-296575P	2001-297414P	3 45/5/57=100 con 110	2001-298528P	2001-298556P	2001-299133P	2001-299230P	2001-299949P	2001-300177P	2001-301530P		2001-302951P	2001-318771P	2001-324687P	US 2001-339266P P	US 2001-337524P P
KIND DATE	A2 20021212	A3 20030220 AL. AM. AT. AU. AZ.	DE, DK.	ID, IL, IN,	LV, MA, MD,	RU, SD, SE,	UZ, VN, YU,	LS, MW, MZ,		ដូ		A1 20021212		7	DE, DK,	LT, LV, FI, RO, MK,			DK.	TR	A1 20050210		A1 20051201	A1 20060504	A1 20070719																			
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Disclosed herein are nucleic acid sequences that encode NOVX polypeptides such as NOV1, NOV3, etc.. Also disclosed are antibodies, which immunospecifically-bind to the polypeptide, as well as derivs., variants, mutants, or fragments of the aforementioned polypeptide, polynucleotide, or antibody. The invention further discloses therapeutic, diagnostic and research methods for diagnosis, prognosis, treatment, and prevention of human diseases involving any one of these novel human nucleic acids, polypeptides, or antibodies, or fragments thereof, such as cancer. Entered STN: 13 Dec 2002 ICM C12N 15-2 (Immunochemistry) A 53 G G

II

Section cross-reference(s): 1, 3, 9, 63 human NOVX protein polynucleotide antibody cancer diagnosis prognosis ST

RL: BSU (Biological study, unclassified); BIOL (Biological study) (9; human NOVX polypeptides, polynucleotides and antibodies for diagnosis, prognosis and therapy of NOVX-associated disorders Claudins therapy

and cancers) H

Glycoproteins
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(C4bp (complement C4b-binding protein); human NOVX polypeptides,
polynucleotides and antibodies for diagnosis, prognosis and
therapy of NOVX-associated disorders and cancers)

H

CD antigens RL: BSU (Biological study, unclassified); BIOL (Biological study)

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for (CD53; human NOVX polypeptides, polynucleotides and antibodies diagnosis, prognosis and therapy of NOVX-associated disorders

and cancers)

II

polynucleotides and (Crohn's disease; human NOVX polypeptides, polynucl antibodies for diagnosis, prognosis and therapy of NOVX-associated disorders and cancers)

H

(Crohn's; human NOVX polypeptides, polynucleotides and antibodies for diagnosis, prognosis and therapy of NOVX-associated disorders Intestine, disease

and cancers) Proteins H

for RL: BSU (Biological study, unclassified); BIOL (Biological study) (Ebnerin; human NOVX polypeptides, polynucleotides and antibodies diagnosis, prognosis and therapy of NOVX-associated disorders

and cancers) Tumor antigens

H

RL: BSU (Biological study, unclassified); BIOL (Biological study) (MEA6/11; human NOVX polypeptides, polynucleotides and antibodies for diagnosis, prognosis and therapy of NOVX-associated disorders

and cancers) Gene, animal H

RL: ARU (Analytical role, unclassified); BPN (Biosynthetic preparation); Proteins

(NOV10; human NOVX polypeptides, polynucleotides and antibodies for diagnosis, prognosis and therapy of NOVX-associated disorders BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)

and cancers) Gene, animal

H

RL: ARU (Analytical role, unclassified); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)

(NOV11; human NOVX polypeptides, polynucleotides and antibodies for diagnosis, prognosis and therapy of NOVX-associated disorders

and cancers) Gene, animal

Proteins H

RL: ARU (Analytical role, unclassified); BPN (Biosynthetic preparation); BSD (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)

(NOV12; human NOVX polypeptides, polynucleotides and antibodies for diagnosis, prognosis and therapy of NOVX-associated disorders

and cancers)

Gene, animal Proteins H

RL: ARU (Analytical role, unclassified); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL (Blological study); PREP (Preparation); USES (Uses) (NOV13; human NOVX polypeptides, polymuclectides and antibodies for diagnosis, prognosis and therapy of NOVX-associated disorders

Gene, animal Proteins

II

RL: ARU (Analytical role, unclassified); BPN (Biosynthetic preparation);

BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses) (NOV14; human NOVX polypeptides, polynuclectides and antibodies diagnosis, prognosis and therapy of NOVX-associated disorders

for

and cancers)

Gene, animal Proteins Ħ

RL: ARU (Analytical role, unclassified); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL for (Biological study); PREP (Preparation); USES (Uses) (NOV15; human NOVX polypeptides, polynucleotides and antibodies diagnosis, prognosis and therapy of NOVX-associated disorders

and cancers)

II

RL: ARU (Analytical role, unclassified); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL

for (Biological study); PREP (Preparation); USES (Uses) (NOV16; human NOVX polypeptides, polynucleotides and antibodies diagnosis, prognosis and therapy of NOVX-associated disorders and cancers)

Gene,

LI

RL: ARU (Analytical role, unclassified); BPN (Biosynthetic preparation);

BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses) (NOVI); human NOVX polypeptides, polynucleotides and antibodies for diagnosis, prognosis and therapy of NOVX-associated disorders

and cancers)

Ħ

RL: ARU (Analytical role, unclassified); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)

(NOV18; human NOVX polypeptides, polynucleotides and antibodies for diagnosis, prognosis and therapy of NOVX-associated disorders

and cancers)

Gene, animal Ħ RL: ARU (Analytical role, unclassified); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); DGN (Diagnostic use); PRP . (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL (NOV19; human NOVX polypeptides, polynucleotides and antibodies for (Biological study); PREP (Preparation); USES (Uses)

of NOVX-associated disorders

diagnosis, prognosis and therapy

Gene, animal H RL: ARU (Analytical role, unclassified); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL

for (NOVI; human NOVX polypeptides, polynucleotides and antibodies diagnosis, prognosis and therapy of NOVX-associated disorders (Biological study); PREP (Preparation); USES (Uses)

Gene, animal Proteins

II

	RL: ARU (Analytical role, unclassified); BPN (Biosynthetic preparation);
	BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL
	VELOCOGY at Broady, Fore (Experiencing) OSES (USES) (NOV20, human NOVX polypeptides, polynocleotides and antibodies for diagnosis, prognosis and therapy of NOVX-associated disorders
II	and cancers) Gene, animal Proteins
	RL: ARU (Analytical role, unclassified); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); DGN (Diagnostic use); PRP
	(Properties); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); BIOL
	(BILDAGICAL BUILDY); FARE (FILEGRAFILDY); OSES (VOTE); (NOVE1; human NOVK polypeptides; polymucleotides and antibodies for diamonsis, promonosis and thereby of NOVK-associated disorders
	and cancers)
ᇤ	Gene, animal
	RL: ARU (Analytical role, unclassified); BPN (Biosynthetic preparation);
	BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL
	(NOVAL) number frown polypeptides, polymerectides and antibodies for diagnosis, prognosis and therapy of NOVX-associated disorders
	and cancers)
H	Gene, animal
	Protection of the section of the section of the process of the process of the section of the sec
	has and chimalyclical force, unclassified), DGN (Diagnostic use); PRP
	(Properties); THU (Therapeutic use); ANST (Analytical study); BIOL
	(Biological study); PREP (Preparation); USES (Uses)
	diagnosis, prognosis and therapy of NOVX-associated disorders
	and cancers)
H	Gene, animal proteins
	Fig. 81. (Analytical role, unclassified); BPN (Biosynthetic preparation);
	As a constant of the constant
	(Properties); THU (Therapeutic use); ANST (Analytical study); BIOL
	(Biological study); PREP (Preparation); USES (Uses) (NOV24: human NOVX nolinearides nolinuslantides and antibodies for
	diagnosis, prognosis and therapy of NOVX-associated disorders
	and cancers)
T	Gene, animal
	Proteins Ri: ARU (Analytical role: unclassified): BPN (Biosynthetic preparation):
	BSU (Biological study, unclassified); DGN (Diagnostic use); PRP
	(Properties); THU (Therapeutic use); ANST (Analytical study); BIOL
	(Biological study); PREP (Preparation); USES (Uses) (NOV25; human NOVX nolypeptides, polymucleotides and antibodies for
	diagnosis, prognosis and therapy of NOVX-associated disorders
!	and cancers)
=	Gene, animal Proteins
	RL: ARU (Analytical role, unclassified); BPN (Biosynthetic preparation);
	BSU (Biological study, unclassified); DGN (Diagnostic use); PRP
	(Froperties); THO (Incrapeutic use); ANSI (Analytical Study); Blob (Biological study); PREP (Preparation); USES (Uses)

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(NOV26; human NOVX polypeptides, polynucleotides and antibodies for diagnosis, prognosis and therapy of NOVX-associated disorders

# H

RL: ARU (Analytical role, unclassified); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); ANST (Analytical study); BIDL (Biological study); PREP (Preparation); USES (Uses) (NOV27; human NOVX polypeptides, polymuclectides and antibodies for diagnosis, prognosis and therapy of NOVX-associated disorders and cancers)

## and cancers) Gene, animal

H

Proteins

RL: ARU (Analytical role, unclassified); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses) (NOV28; human NOVX polypeptides, polypucleotides and antibodies for diagnosis, prognosis and therapy of NOVX-associated disorders and cancers)

# Gene, animal

H

RL: ARU (Analytical role, unclassified); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses) Proteins

(NOV29; human NOVX polypeptides, polynucleotides and antibodies for diagnosis, prognosis and therapy of NOVX-associated disorders

# Gene, animal

H

RL: ARU (Analytical role, unclassified); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses) (NOV2, human NOVX polypeptides, polymucleotides and antibodies for diagnosis, prognosis and therapy of NOVX-associated disorders

and cancers)

## Gene, animal Ħ

RL: ARU (Analytical role, unclassified); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses) (Novals); UND) (NOVA); human NOVX polypeptides, polymucleotides and antibodies for diagnosis, prognosis and therapy of NOVX-associated disorders and cancers)

## Gene, animal H

RL: ARU (Analytical role, unclassified); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses) (NOV31; human NOVX POLYPPEtides, polynucleotides and antibodies for diagnosis, prognosis and therapy of NOVX-associated disorders Proteins

## Gene, animal Proteins Ħ

RL: ARU (Analytical role, unclassified); BPN (Biosynthetic preparation);

(NOV12; human NOVX polypeptides, polynucleotides and antibodies for diagnosis, prognosis and therapy of NOVX-associated disorders BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)

and cancers)

Gene, animal Proteins H

RL: ARU (Analytical role, unclassified); BPN (Biosynthetic preparation); BSU (Balological suudy, unclassified); DGN (Diagnostic use); RRP (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)

(NOV3); human NOVX polypeptides, polynucleotides and antibodies for diagnosis, prognosis and therapy of NOVX-associated disorders

and cancers) Gene, animal H

RL: ARU (Analytical role, unclassified); BPN (Biosynthetic preparation); BSU (Biological gtudy, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL

(Biological study); PREP (Preparation); USES (USes) (NOV34; human NOVX polypeptides, polynucleotides and antibodies for diagnosis, prognosis and therapy of NOVX-associated disorders and cancers)

# Gene, animal

H

RL: ARU (Analytical role, unclassified); BPN (Biosynthetic preparation);

BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses) (NOV15; human NOVX polypeptides, polynucleotides and antibodies for diagnosis, prognosis and therapy of NOVX-associated disorders

# and cancers)

Gene, animal Proteins H

RL: ARU (Analytical role, unclassified); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)

(NOVJ6; human NOVX polypeptides, polynucleotides and antibodies for diagnosis, prognosis and therapy of NOVX-associated disorders and cancers)

Gene, animal Proteins H

RL: ARU (Analytical role, unclassified); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL

(NOV37; human NOVX polypeptides, polynucleotides and antibodies for diagnosis, prognosis and therapy of NOVX-associated disorders (Biological study); PREP (Preparation); USES (Uses)

# and cancers)

Gene, animal Proteins

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RL: ARU (Analytical role, unclassified); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL

antibodies for (NOV18; human NOVX polypeptides, polynucleotides and antibodie diagnosis, prognosis and therapy of NOVX-associated disorders (Biological study); PREP (Preparation); USES (Uses)

Proteins

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RL: ARU (Analytical role, unclassified); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses) (NOV19; human NOVX polypeptides, polynucleotides and antibodies for diagnosis, prognosis and therapy of NOVX-associated disorders

and cancers)

Ħ

RL: ARU (Analytical role, unclassified); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses) (NOV1; human NOVX polypeptides, polynucleotides and antibodies for diagnosis, prognosis and therapy of NOVX-associated disorders

and cancers) Gene, animal

Ħ

RL: ARU (Analytical role, unclassified); BPN (Biosynthetic preparation);
BSU (Biological study, unclassified); DGN (Diagnostic use); PRP
(Properties); THU (Therapeutic use); ANST (Analytical study); BIOL for (NOV40, human NOVX polypeptides, polynucleotides and antibodies diagnosis, prognosis and therapy of NOVX-associated disorders (Biological study); PREP (Preparation); USES (Uses) Proteins

and cancers) Gene, animal

H

RL: ARU (Analytical role, unclassified); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses) (NOV41; human NOVX polypeptides, polynucleotides and antibodies for diagnosis, prognosis and therapy of NOVX-associated disorders

and cancers)

Gene, animal

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RL: ARU (Analytical role, unclassified); BPN (Biosynthetic preparation); (Biological study); PREP (Preparation); USES (USES) (NOV42; human NOVX polypeptides, polynucleotides and antibodies for diagnosis, prognosis and therapy of NOVX-associated disorders BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL

ij

and cancers)

RL: ARU (Analytical role, unclassified); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)

(NOV43; human NOVX polypeptides, polynuclectides and antibodies for diagnosis, prognosis and therapy of NOVX-associated disorders

H

RL: ARU (Analytical role, unclassified); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)

(NOV44; human NOVX polypeptides, polynucleotides and antibodies for diagnosis, prognosis and therapy of NOVX-associated disorders and cancers)

H

RL: ARU (Analytical role, unclassified); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)

(NOV45; human NOVX polypeptides, polynucleotides and antibodies for diagnosis, prognosis and therapy of NOVX-associated disorders

and cancers)

Gene, animal Proteins

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RL: ARU (Analytical role, unclassified); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)

(NOV46; human NOVX polypeptides, polynucleotides and antibodies for diagnosis, prognosis and therapy of NOVX-associated disorders

Gene, animal

Proteins H

RL: ARU (Analytical role, unclassified); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); DGN (biagnostic use); PRP (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)

(NOV4; human NOVX polypeptides, polynucleotides and antibodies for diagnosis, prognosis and therapy of NOVX-associated disorders and cancers)

Gene, animal

H

Proteins

RL: ARU (Analytical role, unclassified); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)

antibodies (NOV5; human NOVX polypeptides, polynucleotides and antibodies diagnosis, prognosis and therapy of NOVX-associated disorders

for

and cancers) Gene, animal

Proteins H

RL: ARU (Analytical role, unclassified); BPN (Biosynthetic preparation);

BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); NST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses) (NOV6; human NOVX polypeptides, polynucleorides and antibodies diagnosis, prognosis and therapy of NOVX-associated disorders and cancers)

Gene, animal

H

RL: ARU (Analytical role, unclassified); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); ANST (Analytical study); BRDC (Preparation); USES (Uses) (NOV7; human NOVX polypeptides, polynucleotides and antibodies for diagnosis, prognosis and therapy of NOVX-associated disorders

and cancers)

Gene, animal

H

RL: ARU (Analytical role, unclassified); BPN (Biosynthetic preparation);

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BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL

(Biological study); PREP (Preparation); USES (Uses) (NOV8; human NOVX polypeptides, polynucleotides and antibodies for diagnosis, prognosis and therapy of NOVX-associated disorders and cancers)

Gene, animal

H

RL: ARU (Analytical role, unclassified); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); MST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses) (NOV9); human NOVX polypeptides, polynucleotides and antibodies diagnosis, prognosis and therapy of NOVX-associated disorders

for

and cancers) Gene, animal

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RL: ARU (Analytical role, unclassified); BPN (Biosynthetic preparation);

BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); NNST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses) (NOVX; human NOVX polypeptides, polynucleotides and antibodies f

for diagnosis, prognosis and therapy of NOVX-associated disorders

and cancers) Receptors

H

RL: BSU (Biological study, unclassified); BIOL (Biological study) (Nogo; human NOVX polypeptides, polynucleotides and antibodies for diagnosis, prognosis and therapy of NOVX-associated disorders and cancers)

H

(Tm7; human NOVX polypeptides, polymucleotides and antibodies for diagnosis, prognosis and therapy of NOVX-associated disorders RL: BSU (Biological study, unclassified); BIOL (Biological study) and cancers) Proteins

Tumor antigens

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RL: BSU (Biological study, unclassified); BIOL (Biological study) (XAGE; human NOVX polypeptides, polynucleotides and antibodies diagnosis, prognosis and therapy of NOVX-associated disorders

and cancers)

Diagnosis Diagnosis H

cancer; human NOVX polypeptides, polynucleotides and antibodies for diagnosis, prognosis and therapy of NOVX-associated disorders and cancers)

Drug delivery systems

H

for

(carriers; human NOVX polypeptides, polynucleotides and antibodies for diagnosis, prognosis and therapy of NOVX-associated disorders and cancers)

RL: BSU (Biological study, unclassified); BIOL (Biological study)

Receptors

H

(cellular; human NOVX polypeptides, polynuclectides and antibodies for diagnosis, prognosis and therapy of NOVX-associated disorders and cancers)

H

(diagnostic; human NOVX polypeptides, polynucleotides and antibodies for diagnosis, prognosis and therapy of NOVX-associated disorders and cancers)

H

(disease; human NOVX polypeptides, polynucleotides and antibodies for diagnosis, prognosis and therapy of NOVX-associated disorders

H

H

H

(fragments; human NOVX polypeptides, polynucleotides and antibodies for (human NOVX polypeptides, polynucleotides and antibodies for diagnosis, (histidine transporter; human NOVX polypeptides, polynucleotides and antibodies for diagnosis, prognosis and therapy of NOVX-associated disorders and cancers) RL: ARG (Analytical reagent use); BPN (Biosynthetic preparation); DGN (Diagnostic use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (USes) Antibodies and Immunoglobulins
RL: ARG (Analytical reagent use); BPN (Biosynthetic preparation); DGN
(Diagnostic use); THU (Therapeutic use); ANST (Analytical study); BIOL
(Biological study); PREP (Preparation); USES (Uses) RL: BSU (Biological study, unclassified); BIOL (Biological study) (endosomal precursor; human NOVX polypeptides, polynucleotides and antibodies for diagnosits, prognosis and therapy of NOVX-associated disposters and cancers) prognosis and therapy of NOVX-associated disorders and cancers) (fusion products; human NOVX polypeptides, polynucleotides and RL: BSU (Biological study, unclassified); BIOL (Biological study) diagnosis, prognosis and therapy of NOVX-associated disorders antibodies for diagnosis, prognosis and therapy of NOVX-associated disorders and cancers) Antibodies and Immunoglobulins Nucleic acid hybridization Susceptibility (genetic) Dissociation constant Drug screening Metabolic disorders Alzheimer's disease Transport proteins Molecular cloning Diabetes mellitus Protein sequences Antitumor agents and cancers) Genetic vectors sednences Immunotherapy Inflammation Eubacteria Diagnosia Prognosis Transgene Mammalia Animals Human DNA

II

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prognosis and therapy of NOVX-associated disorders and cancers)

RL: ARG (Analytical reagent use); BPN (Biosynthetic preparation); DGN (Diagnostic use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses) (humanized; human NOVX polypeptides, polymuleotides and antibodies for diagnosis, prognosis and therapy of NOVX-associated disorders Tumor necrosis factors

RI: BSU (Biological study, unclassified); BIOL (Biological study)
(human NOVX polypeptides, polymucleotides and antibodies for diagnosis, prognosis and therapy of NOVX-associated disorders and cancers) (mammalian; human NOVX polypeptides, polynucleotides and antibodies for diagnosis, prognosis and therapy of NOVX-associated disorders (Biological study); USES (UBes) (human NOVX polypeptides, polynucleotides and antibodies for diagnosis, prognosis and therapy of NOVX-associated disorders and cancers) Tumor antigens
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(mammary Mat8; human NOVX polypeptides, polynucleotides and antibodies
for diagnosis, prognosis and therapy of NOVX-associated (human NOVX polypeptides, polynucleotides and antibodies for diagnosis, prognosis and therapy of NOVX-associated disorders and cancers) (human NOVX-associated, human NOVX polypeptides, polynucleotides and antibodies for diagnosis, prognosis and therapy of NOVX-associated disorders and cancers) (marker; human NOVX polypeptides, polymucleotides and antibodies for diagnosis, prognosis and therapy of NOVX-associated disorders Natural products, pharmaceutical RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (membrane, integral, human NOVX polypeptides, polynucleotides and antibodies for diagnosis, prognosis and therapy of NOVX-associated disorders and cancers) (membrane, type III, human NOVX polypeptides, polynucleotides and antibodies for diagnosis, prognosis and therapy of NOVX-associated disorders and cancers) RL: BSU (Biological study, unclassified); DGN (Diagnostic use); BIOL (Biological study); USES (Uses) (immunodiagnosis; human NOVX polypeptides, polynucleotides and antibodies for diagnosis, prognosis and therapy of NOVX-associated disorders and cancers) RL: BSU (Biological study, unclassified); BIOL (Biological study) RL: BSU (Biological study, unclassified); BIOL (Biological study) Antibodies and Immunoglobulins Promoter (genetic element) disorders and cancers) Primers (nucleic acid) Probes (nucleic acid) Disease, animal and cancers) and cancers) Prion proteins Animal cell Animal tissue Animal cell Cadherins Syntaxins Diagnosis Proteins Proteins H H H H H H H H H H H

RL: ARG (Analytical reagent use); BPN (Biosynthetic preparation); DGN
(Diagnostic use); THU (Therapeutic use); ANST (Analytical study); BIOL
(Biological study); PREP (Preparation); USES (Uses)
(human NOVX polypeptides, polynucleotides and antibodies for diagnosis,

(human NOVX polypeptides, polynucleotides and antibodies for diagnosis, prognosis and therapy of NOVX-associated disorders and cancers) RL: ANT (Analyte); BSU (Biological study, unclassified); ANST (Analytical

Antibodies and Immunoglobulins

H

study); BIOL (Biological study)

H

(meningioma, antigen, human NOVX polypeptides, polynucleotides and antibodies for diagnosis, prognosis and therapy of NOVX-associated disorders and cancers) Nervous system, neoplasm H

Neoplasm II

(metastasis, human NOVX polypeptides, polynucleotides and antibodies for diagnosis, prognosis and therapy of NOVX-associated disorders and cancers)

Antibodies and Immunoglobulins

H

RL: ARG (Analytical reagent use); BPN (Biosynthetic preparation); DGN (Diagnostic use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); RREP (Preparation); USES (Uses) (monoclonal; human NOVX polypeptides, polynucleotides and antibodies for diagnosis, prognosis and therapy of NOVX-associated disorders and cancers)

Meninges H

(neoplasm, meningioma, antigen; human NOVX polypeptides, polynucleotides and antibodies for diagnosis, prognosis and therapy of NOVX-associated disorders and cancers)

RL: BSU (Biological study, unclassified); BIOL (Biological study) (neurofascin precursor; human NOVX polypeptides, polynucleotides and antibodies for diagnosis, prognosis and therapy of NOVX-associated disorders and cancers) Proteins

H

Nerve, disease H

(neuropathy, human NOVX polypeptides, polynucleotides and antibodies for diagnosis, prognosis and therapy of NOVX-associated

disorders and cancers)

H

Antibodies and Immunoglobulins
RL: ARG (Analytical reagent use); BPN (Biosynthetic preparation); DGN
(Diagnostic use); THU (Therapeutic use); ANST (Analytical study); BIOL
(Blological study); PREP (Preparation); USES (Uses)
(neutralizing; human NOVX polypeptides, polynucleotides and antibodies
for diagnosts, prognosts and therapy of NOVX-associated
disorders and cancers)

Transport proteins

H

RL: BSU (Biological study, unclassified); BIOL (Biological study) (phospholipid transporter; human NOVX polypeptides, polynucleotides and antibodies for diagnosis, prognosis and therapy of NOVX-associated disporters and cancers)

H

Transport proteins
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(proline transporter; human NOVX polypeptides, polynucleotides and antibodies for diagnosis, prognosis and therapy of NOVX-associated disorders and cancers)

Cadhering H

RL: BSU (Biological study, unclassified); BIOL (Biological study) (protocadherin,  $\alpha$  C1-like; human NOVX polypeptides, polynucleotides and antibodies for diagnosis, prognosis and

therapy of NOVX-associated disorders and cancers) Antibodies and Immunoglobulins

H

RL: BSU (Biological study, unclassified); BIOL (Biological study) (stalic acid-binding, human NOVX polypeptides, polynucleotides and antibodies for diagnosis, prognosis and therapy of NOVX-associated disorders and cancers)

H

(siglec; human NOVX polypeptides, polynucleotides and antibodies for diagnosis, prognosis and therapy of NOVX-associated disorders Agglutinins and Lectins RL: BSU (Biological study, unclassified), BIOL (Biological study)

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II	
	(site-directed, substitution, human NOVX polypeptides, polynucleotides and antihodies for discussis, prognosis and therapy of
ţ	associated disorders and
3	Antigens RL: BSU (Biological study, unclassified); BIOL (Biological study) (surface, leukocyte: human NOVX nolymerides, nolymedjentides and
	variance, leavelyer, numan Nova PolyEpitace, polymeractures and antibodies for diagnosis, prognosis and therapy of NOVX-associated disorders and cancers)
II	Proteins RL: ANT (Analyte); BSU (Biological study, unclassified); ANST (Analytical
	<pre>study); BIOL (Biological study) (test; human NOVX polypetides, polynucleotides and antibodies for diagnosis. prognosis and therapy of NOVX-associated disorders</pre>
ŧ	and cancers)
TT	Proteins RL: BSU (Biological study, unclassified); BIOL (Biological study)
	(transmembrane; human NOVX polypeptides, polynucleotides and antibodies
	tor araynobra, prognobra and enerapy or nova-absocrated disorders and cancers)
II	Injury  (terring, human Watty and promptidge, and promptidge, for
	in NOVA polypeptings, polymoreorings and antibodies regnosis and therapy of NOVX-associated disorders
E-	and cancers) Thrombosophine
i	ical study, unclassified); BIOL (Biological
	(type 1 motif; human NOVX polypeptides, polynucleotides and antibodies
	for diagnosis, prognosis and therapy of NOVX-associated
TI	Inflammation
	isease
	(ulcerative colitis; human NOVX polypeptides, polynucleotides and
	antibodies for diagnosis, prognosis and therapy of
H	NOVA-associated disorders and cancers/ Integrins
•	RL: BSU (Biological study, unclassified); BIOL (Biological study)
	$\{lpha_8;\ human NOVX\ polypeptides, polynucleotides and antibodies for$
	diagnosis, prognosis and therapy of NOVX-associated disorders
II	Transforming growth factors
	RL: BSU (Biological study, unclassified); BIOL (Biological study)
	(β-, binding protein 3; human NOVX polypeptides, polynucleotides
	NOVX-associated disorders and cancers)
TI	Protein NOVla (human)
	Protein NOV3a (human) 478431-35-5P, Protein NOV4a
	478431-37-7P, Profein NOV5a (numan) 478431-59-9P, Profein NOV5a (numan) 478431-41-3P, Profein NOV5a (human) 478431-43-5P, Profein NOV7a (human)
	Protein NOV8a (human) 478431-47-9P, Protein NOV9a (
	Protein NOV9b (human) 4
	478431-53-7P, Protein NOV11a (human) 478431-55-9P, Protein NOV12a (human) 478431-57-1P, Protein NOV12b (human) 478431-59-3P, Protein
	478431-61-7P, Protein NOV13b (hu
	Protein NOV14a (human) 478431-65-1P, Protein NOV15a (human) 478431-67-3P, Protein NOV15b (human) 478431-70-8P, Protein NOV17a
	7b (human) 478431-
	NOV17c (human) 478431-76-4P, Protein NOV18a (human) 478431-78-6P, Protein NOV19a (human) 478431-80-0P. Protein NOV20a (human)
	NOV20b (human) 478431-84-
	(human) 478431-86-6P, Protein NOV22a (human) 478431-88-8P, Protein

(human) 478432-71-2P, Protein NOV35d (human) 478432-72-3P, Protein NOV35e (human) 478432-73-4P, Protein NOV36e (human) 878432-73-4P, Protein NOV16e (human) 820 (Analytical role, unclassified); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (human) 478432-29-0P, Protein NOV37a (human) 478432-31-4P, Protein NOV37b (human) 478432-33-6P, Protein NOV37c (human) 478432-35-8P, Protein NOV38a (human) 478432-37-0P, Protein NOV38b (human) -8P, Protein NOV26a (human) 478431-98-0P, Protein NOV26b 478432-00-7P, Protein NOV27a (human) 478432-02-9P, Protein uman) 478432-04-1P, Protein NOV29a (human) 478432-06-3P, (human) 478432-43-8P, Protein NOV39c (human) 478432-45-0P, Protein NOV39d (human) 478432-47-2P, Protein NOV39e (human) 478432-49-4P, Protein NOV39f (human) 478432-51-8P, Protein NOV40a (human) (human) 478432-57-4P, Protein NOV40d (human) 478432-59-6P, Protein NOV40e (human) 478432-61-0P, Protein NOV41a (human) 478432-62-1P, Protein NOV34a (human) 478432-64-1P, Protein NOV35a (human) 478432-16-5P, Protein uman) 478432-20-1P, 478432-27-8P, Protein NOV36a 478432-12-1P, Protein NOV30d 478432-41-6P, Protein NOV39b 478432-55-2P, Protein NOV40c 478432-69-8P, Protein NOV35c (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL 478432-08-5P, Protein NOV30b (human) Protein NOV31c (human) 478432-22-3P, Protein NOV32a (human) 478431-94-6P, Protein NOV25a (human) 478432-14-3P, Protein NOV30e (human) 47843: uman) 478432-18-7P, Protein NOV31b (human) 478431-90-2P, Protein NOV24a (human) 478431-96-8P, Protein NOV26a (human) 478432-10-9P, Protein NOV30c (human) 478432-24-5P, Protein NOV33a (human) 178432-53-0P, Protein NOV40b (human) 478432-66-5P, Protein NOV35b (human) 178432-39-2P, Protein NOV39a (human) Protein NOV30a (human) Protein NOV24b (human) NOV3la (human)

(Biological study); PREP (Preparation); USES (USES) (anino acid sequence; human NOVX polypeptides, polynucleotides and antibodies for diagnosis, prognosis and therapy of NOVX-absociated disorders and cancers)

H

9000-83-3, ATPase 9028-86-8, Aldehyde dehydrogenase 37259-58-8, Serine protease 40581-18-8, Emerin 109319-16-6 153190-52-4, Colon carcinoma kinase 4 171715-27-8, Reprolysin

RI: BSU (Biological study, uncleasified); BIOL (Biological study)
(human NOVX polypeptides, polymuclectides and antibodies for diagnosis, prognosis and therapy of NOVX-associated disorders and cancers)
prognosis and therapy of NOVX-associated disorders and cancers)
IT 478431-28-6P 478411-30-0P 478431-32-P 478431-34-4P 478431-36-6P 478431-38-6P 478431-36-4P 478431-36-4P 478431-56-0P 478431-56-0P 478431-58-2P 478431-56-0P 478431-56-0P 478431-69-5P 478431-67-9P 478431-57-3P 478431-69-5P 478431-77-3P 478431-81-9P 478431-91-3P 478431-91-9P 478431-9P 47 CDNA) 4'8434-12-2. (human protein NOV31a CDNA) 478432-17-6P, DNA (human protein NOV31a CDNA) 478432-13-6P 478432-23-4P 478432-25-6P 478432-26-7P 478432-26-9P 478432-36-9P 478432-36-9P, DNA (human protein NOV38b 478432-26-7P 478432-38-9P, DNA (human protein NOV38b 478432-36-9P, DNA (human protein NOV38b 478432-36-9P) 478432-46-1P, DNA (human protein NOV39e cDNA) CDNA) 478412-38-1P 478412-40-5P, DNA (human protein NOV39b CDNA) 478432-42-7P, DNA (human protein NOV39c CDNA) 478432-44-9P, DNA (h 178432-48-3P, DNA (human protein NOV39f cDNA) 478432-52-9P, DNA (human protein NOV40b cDNA) 478432-56-3P, DNA (human protein NOV40d cDNA) protein NOV39d cDNA) H

478432-68-7P, DNA (human NOV354 CDNA) 478432-70-1P, DNA (human protein NOV35e CDNA) (Analytical role, unclassified); BPN (Biosynthetic preparation); (nucleotide sequence; human NOVX polypeptides, polynucleotides and antibodies for diagnosis, prognosis and therapy of cDNA) 478432-60-9P, DNA (human protein NOV41a cDNA) 478432-65-4P, DNA (human protein NOV35b cDNA) 478452-55-0 478452-60-7 478452-80-1 478452-85-6 478452-90-3 478452-95-8 478453-00-8 478453-05-3 478453-10-0 478453-15-5 478453-20-2 478453-25-7 478453-30-4 478453-35-9 478453-42-8 RL: ARU (Analytical role, unclassified); BPN (Biosynthetic preparat BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL 478453-55-3 (unclaimed nucleotide sequence; human NOVX polypeptides, 478452-34-5 478452-39-0 478452-44-7 478452-49-2 478452-54-9 478452-69-6 478452-79-8 478452-84-5 478452-89-0 478452-94-7 478452-99-2 478453-04-2 478453-19-9 478453-24-6 478453-54-2 478453-64-4 478452-59-4 478452-64-1 478452-74-3 478453-09-7 478453-14-4 478453-29-1 478453-34-8 478453-39-3 (Biological study); PREP (Preparation); USES (Uses) 478432-67-6P, DNA (human protein NOV35c cDNA) NOVX-associated disorders and cancers) 478452-23-2 478452-28-7 478452-43-6 478452-33-4 478452-38-9 478452-48-1 478452-53-8 478452-58-3 478452-63-0 478452-68-5 478452-78-7 478452-83-4 478452-88-9 478452-98-1 478453-03-1 478453-08-6 478453-18-8 478452-73-2 478453-13-3 478452-22-1 478452-42-5 478452-32-3 478452-37-8 478452-52-7 478452-77-6 478453-62-2 478452-27-6 478452-57-2 478452-62-9 478452-67-4 478452-82-3 478452-87-8 478452-97-0 478453-02-0 478453-22-4 478453-27-9 478453-32-6 478453-52-0 478453-57-5 478452-72-1 478452-92-5 478453-07-5 478453-12-2 478453-17-7 protein NOV35d cDNA) protein NOV40e cDNA) RL: PRP (Properties) 478452-21-0 478452-46-9 478452-86-7 478452-26-5 478452-31-2 478452-36-7 478452-41-4 478452-56-1 478452-71-0 478452-81-2 478452-91-4 478452-96-9 478453-01-9 478453-06-4 478453-61-1 478452-61-8 478452-66-3 478452-76-5 478453-31-5 478453-36-0 478453-11-1 478453-16-6 478453-21-3 478453-26-8 478453-47-3 478453-56-4 Ħ

(unclaimed seguence; human NOVX polypeptides, polynucleotides and 478453-51-9 polynucleotides and antibodies for diagnosis, prognosis and therapy of NOVX-associated disorders and cancers) 478453-40-6 478453-41-7 478453-43-9 478453-44-0 478453-46-2 478453-48-4 478453-49-5 478453-50-8 RL: PRP (Properties)

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antibodies for diagnosis, prognosis and therapy of NOVX-associated disorders and cancers)

Nervous system-specific antigens and activated T cells for neuroprotection and neuronal degeneration Eisenbach-Schwartz, Michal; Hauben, Ehud; Cohen, Irun R.; Beserman, Pierre; Mosonego, Alon; Moalem, Gila Yeda Research and Development Co. Ltd., Israel HCAPLUS COPYRIGHT 2007 ACS on STN 2002:450338 HCAPLUS Full-text inhibition 137:32058 L152 ANSWER 22 OF 36 PATENT ASSIGNEE(S): ACCESSION NUMBER: DOCUMENT NUMBER: INVENTOR (S):

Ser. No. 314,161.

U.S. Pat. Appl. Publ., 93 pp., Cont.-in-part of U.S.

SOURCE:

DNA (human

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Entered STN: 14 Jun 2002 Compus. and methods to promote nerve regeneration or to confer neuroprotection and prevent or inhibit neuronal degeneration within the nervous System, either the central nervous system or the peripheral nervous system, are provided. Treatment involves administering NS-specific activated T cells, or an NS-specific antigen or analog thereof, a peptide derived therefrom or an analog or derivative of said specifie, or a nucleotide sequence encoding said antigen or peptide, or any combination thereof. The NS-specific antigen is myelin basic protein, myelin oligodendrocyte glycoprotein, proteolipid, myelinassociated glycoprotein, S-100,  $\beta$ -amyloid, Thy-1, P0, P2 or neurotransmitter Entered STN: AB BB

ICM A61K038-17 receptor

15-2 (Immunochemistry) 514012000 INCL

Section cross-reference(s): 1, 3, 63

RL: BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (Nogo; nervous system-specific antigens and activated T cells for neuroprotection and neuronal degeneration inhibition)

p.119

437135-40-5, Myelin basic protein (human gene MBP) 437135-48-3, protein (human gene PLP) 437135-49-4 437135-43.1, protein Nogok (Rattus norvegicus) 437135-55-2, Protein Nogok (Rattus norvegicus) 437135-56-1, protein Nogo RL: BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); B1DL (Biological study); USSE (Uses) (anino acid sequence; nervous system-specific antiqens and activated T cells for neuroprotection and neuronal degeneration inhibition) 437135-59-6, Protein  $(\beta$ -, nervous system-specific antigens and activated T cells for neuroprotection and neuronal degeneration inhibition) RL: BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (nervous system-specific antigens and activated T cells for neuroprotection and neuronal degeneration inhibition) NogoA (human) 437135-58-5, Protein NogoB (human) NogoC (human) 437135-60-9, Protein Nogo receptor (human) 437135-61-0, Protein Nogo receptor (Mus Peripheral nervous system, disease Central nervous system, disease Nervous system, disease Surgery T cell (lymphocyte) Alzheimer's disease Parkinson's disease Glaucoma (disease) Protein sequences Prion diseases Refsum disease DNA sequences Fabry disease musculus) Human Ħ H H

A review. Recent work has demonstrated that axonal regeneration in the central nervous system is limited by myelin-derived Nogo binding to an axonal Modulation of axonal regeneration in neurodegenerative disease. Focus on Nogo Strittmatter, Stephen M. Department of Neurology, and Section of Neurobiology, Yale University School of Medicine, New Haven, CT, 06510, USA Journal of Molecular Neuroscience (2002) L152 ANSWER 23 OF 36 HCAPLUS COPYRIGHT 2007 ACS ON STN ACCESSION NUMBER: 2002:694987 HCAPLUS FUll-text CODEN: JMNEES; ISSN: 0895-8696 Journal; General Review Humana Press Inc. 19(1/2), 117-121 137:350109 English Entered STN: 13 Sep 2002 CORPORATE SOURCE: DOCUMENT NUMBER: PUBLISHER: DOCUMENT TYPE: AUTHOR (S): LANGUAGE: SOURCE: TITLE: AB ED

pathol. and compensatory plasticity in Alzheimer's Disease is considered. 14-0 (Mammalian Pathological Biochemistry) review Nogo receptor axon regeneration S ts

structural plasticity.

Nogo Receptor.

The Nogo system appears to have a physiol. role in regulating ricity. The possibility that the Nogo system contributes to

neurodegeneration Alzheimer

(Nogo receptor in modulation of axonal regeneration in neurodegenerative disease) Synaptic plasticity Alzheimer's disease Nerve regeneration Nerve regeneration Proteins H H

RL: BSU (Biological study, unclassified); BIOL (Biological study) (Nogo; Nogo receptor in modulation of axonal regeneration in neurodegenerative disease) Receptors

Nervous system, disease

H

(degeneration; Nogo receptor in modulation of axonal regeneration in neurodegenerative disease)
E COUNT:
11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT REFERENCE COUNT:

-> d L152 24-36 ibib ab hit

Unaltered plasma levels of beta-amyloid(1-40) and beta-amyloid(1-42) upon stimulation of human platelets. DUPLICATE 2 MEDLINE Full-text 2003258477 MEDLI PubMed ID: 12784033 MEDLINE on STN L152 ANSWER 24 OF 36 ACCESSION NUMBER: DOCUMENT NUMBER: AUTHOR: TITLE:

Olsson Annika, Vanmechelen Eugeen; Vanderstichele Hugo, Davidsson Pia; Blennow Kaj

Institute of Clinical Neuroscience, Experimental Neuroscience Section, Goteborg University, Sahlgrenska University Hospital/Molndal, Molndal, Sweden.. Annika.Olsson@neuro.gu.se CORPORATE SOURCE:

Dementia and geriatric cognitive disorders, (2003) Vol. 16, No. 2, pp. 93-7. Journal code: 9705200. ISSN: 1420-8008. SOURCE:

Journal; Article; (JOURNAL ARTICLE) (RESEARCH SUPPORT, NON-U.S. GOV'T) Switzerland DOCUMENT TYPE: PUB. COUNTRY: LANGUAGE:

Last Updated on STN: 16 Oct 2003 Entered Medline: 15 Oct 2003 Entered STN: 5 Jun 2003 ENTRY MONTH: ENTRY DATE:

Priority Journals

FILE SEGMENT:

English 200310

precursor protein (APP), occurring in both normal and AD subjects, results in the generation and secretion of soluble APP, Abeca(40) and Abeta(42). Platelets have been regarded as the primary source of circulating APP and Abeta. Plasma levels of Abeta may therefore be dependent on platelet activation. We analysed Abeta(4042) in plasma in the presence of physiological agonists of platelet activation such as adenosine diphosphate, collagen, thrombin, and a synthetic agonist, thrombin receptor activator peptide 6. We found that the levels of Abeta(4042) in plasma were not related to platelet activation, suggesting that sampling techniques affecting platelet activation, suggesting that sampling techniques affecting platelet activation do not confound measurement of Abeta(4042) in plasma. Accumulation of beta-amyloid (Abeta) in the brain is one of the central lesions in Alzheimer's disease (AD). Alternative cleavage of the amyloid AB

Dementia and geriatric cognitive disorders, (2003) Vol. 16, No. 2, pp. 93-7 တ္ထ

Journal code: 9705200. ISSN: 1420-8008.

p.121

10/553,669

Accumulation of beta-amyloid (Abeta) in the brain is one of the central lesions in Alzheimer's disease (AD). Alternative cleavage of the amyloid precursor protein (APP), occurring in both normal and AD subjects, results in the generation and secretion of soluble APP, Abeta(40) and Abeta(42). Platelets have been regarded as the primary source of circulating APP and Abeta. Plasma levels of Abeta may therefore be dependent on platelet activation. We analysed Abeta(40/42) in plasma in the presence of collagen, thrombin, and a synthetic agonist , thrombin receptor activator peptide 6. We found that the levels of Abeta(40/42) in plasma were not related to platelet activation, suggesting that sampling techniques affecting platelet activation do not confound measurement of Abeta(40/42 )in plasma. physiological agonists of platelet activation such as adenosine diphosphate, Copyright 2003 S. Karger AG, Basel AB

Amyloid Precursor Protein Secretases \*Amyloid beta-Protein: BL, blood Alzheimer Disease t

Aspartic Endopeptidases: BL, blood \*Blood Platelets: ME, metabolism

Endopeptidases Humans

blood blood Membrane Proteins: BL, \*Peptide Fragments: BL,

Platelet Activation

Proteins); 0 (PSEN1 protein, human); 0 (Peptide Fragments); 0 (Amyloid beta-Protein); 0 (Membrane Presenilin-1 Z

(Presentiin-1); 0 (amyloid beta-protein (1-40)); 0 (amyloid beta-protein (1-42)); EC 3.4.- (Amyloid Precureor Protein Secretases); EC 3.4.- (Endopeptidases); EC 3.4.23.- (Aspartic Endopeptidases); EC 3.4.23.-

(BACEl protein, human)

DUPLICATE 4 Uptake and pathogenic effects of amyloid MEDLINE Full-text 2002346485 MEDLI PubMed ID: 12088742 MEDLINE on STN L152 ANSWER 25 OF 36 ACCESSION NUMBER: DOCUMENT NUMBER: TITLE:

integrin antagonists and blocked by NMDA receptor beta peptide 1-42 are enhanced by antagonists.

Psychiatry and Human Behavior, 101 Theory, Suite 250, University of California at Irvine, 92697, USA.. Bi X; Gall C M; Zhou J; Lynch G CORPORATE SOURCE:

AUTHOR:

AG00538 (NIA) xbi@uci.edu CONTRACT NUMBER:

Neuroscience, (2002) Vol. 112, No. 4, p Journal code: 7605074. ISSN: 0306-4522. (SGNIN) 66778N SOURCE:

pp. 827-40.

Journal; Article; (JOURNAL ARTICLE) United States DOCUMENT TYPE: PUB. COUNTRY:

(RESEARCH SUPPORT, NON-U.S. GOV'T)
(RESEARCH SUPPORT, U.S. GOV'T, P.H.S.) Priority Journals English 200209 FILE SEGMENT: ENTRY MONTH: LANGUAGE:

Entered STN: 29 Jun 2002 Last Updated on STN: 4 Sep 2002 Entered Medline: 3 Sep 2002

Many synapses contain two types of receptors - integrins and N-methyl-D-aspartate (NMDA) receptors - that have been implicated in peptide internalization. The present studies tested if either class is involved in AB

Alzheimer's disease occur once critical intraneuronal Abeta concentrations are Cultured hippocampal slices were exposed to Abetal-42 for 6 days in amino-5-phosphonovalerate completely blocked internalization of Abeta, up-regulation of cathepsin D, and activation of microglia. Our results identify the slices co-treated with integrin antagonists. Uptake was also found in a broader range of hippocampal subfields in RGD-treated slices. Increased acquestration was accompanied by two characteristics of early stage activation of microglia. The selective NMDA receptor antagonist D-(-)-2echiptatin. Abeta uptake, as assessed with immunocytochemistry, occurred in 42% of the slices incubated with Abeta peptide alone but in more than 80% of Alzheimer's disease: elevated concentrations of cathepsin D immunoreactivity classes of receptors that cooperatively regulate the internalization of uptake of the 42-residue form of amyloid beta peptide (Abetal-42), an event hypothesized to be of importance in the development of Alzheimer's Abeta1.42 and support the hypothesis that characteristic pathologies of the presence or absence of soluble Gly-Arg-Gly-Asp-Ser-Pro, a peptide antagonist of Arg-Gly-Asp (RGD)-binding integrins, or the disintegrin reached.

peptide 1-42 are enhanced by integrin antagonists and blocked by Uptake and pathogenic effects of amyloid beta receptor antagonists.

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Neuroscience, (2002) Vol. 112, No. 4, pp. 827-40. ၀ွ

appartate (NMDA) receptors - that have been implicated in peptide internalization. The present studies tested if either class is involved in the uptake of the 42-residue form of amyloid beta peptide (Abetal-42), an event hypothesized to be of importance in the development of Alzheimer's Journal code: 7605074. ISSN: 0306-4522. Many synapses contain two types of receptors - integrins and N-methyl-D-

disease. Cultured hippocampal slices were exposed to Abetal-42 for 6 days in the presence or absence of soluble Gly-Arg-Gly-Asp-Ser-Pro, a peptide antagonist of Arg-Gly-Asp (RGD)-binding integrins, or the disintegrin and activation of microglia. The selective NMDA receptor antagonist D-(-)-2echistatin. Abeta uptake, as assessed with immunocytochemistry, occurred in 42% of the slices incubated with Abeta peptide alone but in more than 80% of the slices co-treated with integrin antagonists. Uptake was also found in a broader range of hippocampal subfields in RGD-treated slices. Increased Alzheimer's disease: elevated concentrations of cathepsin D immunoreactivity sequestration was accompanied by two characteristics of early stage

Alzheimer's disease occur once critical intraneuronal Abeta concentrations are amino-5-phosphonovalerate completely blocked internalization of Abeta, up-regulation of cathepsin D, and activation of microglia. Our results identify two classes of receptors that cooperatively regulate the internalization of Abetal-42 and support the hypothesis that characteristic pathologies of reached

2-Amino-5-phosphonovalerate: PD, pharmacology

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Alzheimer Disease: ME, metabolism

\*Amyloid beta-Protein: AE, adverse effects \*Amyloid beta-Protein: ME, metabolism

Cathepsin D: ME,

Culture Techniques

Hippocampus: ME, metabolism

'Integrins: AI, antagonists & inhibitors Immunohistochemistry

metabolism metabolism Microglia: ME, 'Integrins: ME,

\*Oligopeptides: PD, pharmacology

\*Peptide Fragments: AE, adverse effects \*Peptide Fragments: ME, metabolism

# 10/553,669

\*Receptors, N-Methyl-D-Aspartate: AI, antagonists & inhibitors \*Receptors, N-Methyl-D-Aspartate: ME, metabolism

0 (Amyloid beta-Protein); 0 (Integrins); 0
(Oligopeptides); 0 (Peptide Fragments); 0 (Receptors, N-Methyl-D-Aspartate); 0 (amyloid beta-protein (1-42)); S

0 (glycyl-arginyl-alanyl-aspartyl-seryl-proline); EC 3.4.23.5 (Cathepsin

Thrombin receptor activation induces secretion and nonamyloidogenic processing of amyloid DUPLICATE 6 MEDLINE Full-text MEDLINE on STN PubMed ID: 8077213 94357904 L152 ANSWER 26 OF 36 ACCESSION NUMBER: DOCUMENT NUMBER:

beta-protein precursor.

AUTHOR:

Cunningham D D; Van Nostrand W E Department of Microbiology and Molecular Genetics, College of Medicine, University of California, Irvine 92717-4025. Davis-Salinas J; Saporito-Irwin S M; Donovan F M; CORPORATE SOURCE:

AG0096-11 (NIA) HL49566 (NHLBI) AG00538 (NIA) CONTRACT NUMBER:

The Journal of biological chemistry, (1994 Sep

SOURCE:

Vol. 269, No. 36, pp. 22623-7. Journal code: 2985121R. ISSN: 0021-9258. United States PUB. COUNTRY:

Journal; Article; (JOURNAL ARTICLE) (RESEARCH SUPPORT, DOCUMENT TYPE:

(RESEARCH SUPPORT, NON-U.S. GOV'T) (RESEARCH SUPPORT, U.S. GOV'T, P.H.S.) English LANGUAGE:

Entered STN: 13 Oct 1994 Priority Journals 199410 FILE SEGMENT: ENTRY MONTH: ENTRY DATE:

Last Updated on STN: 3 Feb 1997

Entered Medline: 4 Oct 1994

investigated the effects of thrombin on the secretion and processing of PN-2/A beta PP and the production of A beta in a cellular system. Incubation of glioblastoma cells with thrombin (1-5 nM) resulted in the accumulation of The amyloid beta-protein (A beta) and protease nexin-2/amyloid beta-protein precursor (PN-2/A beta PP) are major constituents of senile plaques and cerebrovascular deposits in individuals with Alzheimer's disease and related disorders. It has been suggested that the coagulation protease thrombin may Here we process A beta PP in a manner leading to the formation of A beta. ΑB

abnormally processed, carboxy-terminal-truncated forms of secreted PN-2/A beta PP (approximately 85 kDa) in the culture medium. Higher concentrations of thrombin (> 10 nM) also increased the levels of secreted PN-2/A beta PP in cultured untransfected glioblastoma cells and glioblastoma cells that were stably transfected to overproduce the 695 isoform of A beta PP. Increased secretion of PN-2/A beta PP required the proteolyric activity of thrombin, was induced by activation of the thrombin receptor by agonias peptides, and required activation of protein kinase C. Incubation of the untransfected and mechanisms regarding the secretion of PN-2/A beta PP. Although the present studies suggest that thrombin does not directly contribute to A beta formation, its proteclysis of secreted PN-2/A beta PP may disrupt regions near soluble A beta in the culture medium consistent with previously suggested transfected glioblastoma cells with thrombin led to decreased levels of the carboxyl terminus of the secreted proteins that account for their neuroprotective and cell adhesive properties. Thrombin receptor activation induces secretion and nonamyloidogenic

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processing of amyloid beta-protein

Š. the Journal of biological chemistry, (1994 Sep 9) Vol. 269, 80

The amyloid beta-protein (A beta) and protease nexin-2/amyloid beta- protein 36, pp. 22623-7. Journal code: 2985121R. ISSN: 0021-9258. ΑB

process A beta PP in a manner leading to the formation of A beta. Here we investigated the effects of thrombin on the secretion and processing of PN-2/A beta PP and the production of A beta in a cellular system. Incubation of glioblastoma cells with thrombin (1-5 nM) resulted in the accumulation of abnormally processed, carboxyl-terminal-truncated forms of secreted PN-2/A beta PP (approximately 85 kDa) in the culture medium. Higher concentrations of thrombin (> 10 mM) also increased the levels of secreted PN-2/A beta PP in cultured untransfected glioblastoma cells and glioblastoma cells that were stably transfected to overproduce the 695 isoform of A beta PP. Increased secretion of PN-2/A beta PP required the proteolytic activity of thrombin, was mechanisms regarding the secretion of PN-2/A beta PP. Although the present studies suggest that thrombin does not directly contribute to A beta formation, its proteolysis of secreted PN-2/A beta PP may disrupt regions near the carboxyl terminus of the secreted proteins that account for their induced by activation of the thrombin receptor by agonist peptides, and required activation of protein kinase C. Incubation of the untransfected and transfected glioblastoma cells with thrombin led to decreased levels of precursor (PN-2/A beta PP) are major constituents of senile plaques and cerebrovascular deposits in individuals with Alzheimer's disease and related disorders. It has been suggested that the coagulation protease thrombin may soluble A beta in the culture medium consistent with previously suggested

Amyloid beta-Protein Precursor: BI, biosynthesis neuroprotective and cell adhesive properties.

\*Amyloid beta-Protein Precursor: ME, metabolism

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Dose-Response Relationship, Drug

Glioblastoma

Immunoblotting

Kinetico

Protein Kinase C: ME, metabolism
\*Protein Processing Post-Translational
\*Receptors, Thrombin: DE, drug effects
\*Receptors, Thrombin: PH, physiology

\*Thrombin: PD, pharmacology

Transfection

Tumor Cells, Cultured

0 (Amyloid beta-Protein Precursor); 0 (Receptors, Thrombin); EC 2.7.1.37 (Protein Kinase C); EC 3.4.21.5 3

MEDLINE on STN L152 ANSWER 27 OF 36 ACCESSION NUMBER: DOCUMENT NUMBER:

2005395151 MEDLINE Full-text
PubMed ID: 16054018
Understanding molecular mechanisms of proteolysis in Alzheimer's disease: progress toward therapeutic interventions.

Higuchi Makoto, Iwata Nobuhisa; Saido Takaomi C Laboratory for Proteolytic Neuroscience, RIKEN Brain Science Institute, 2-1 Hirosawa, Wako, Saitama 351-0198, Japan. mhiguchi@brain.riken.jp AUTHOR: CORPORATE SOURCE:

Biochimica et biophygica acta, (2005 Aug 1) Vol. 1751, No. 1, pp. 60-7. Electronic Publication: 2005-03-17. Ref: 61 Journal code: 0217513, ISSN: 0006-3002.

SOURCE:

Journal; Article; (JOURNAL ARTICLE) General Review; (REVIEW) Netherlands DOCUMENT TYPE: PUB. COUNTRY:

LANGUAGE:

Priority Journals FILE SEGMENT:

ENTRY MONTH: ENTRY DATE:

Entered STN: 2 Aug 2005

Amyloid beta peptide (Abeta) is not only a major constituent of extracellular Last Updated on STN: 28 Sep 2005 Entered Medline: 27 Sep 2005

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fibrillary pathologies in Alzheimer's disease (AD) brains, but is also physiologically produced and metabolized in neurons. This fact led us to the notion that an age-related decrease in Abeta catabolism may contribute to the molecular pathogenesis of AD, providing a trationale for seeking proteolytic enzymes that degrade Abeta in the brain. Our recent studies have demonstrated that neprilysin is the most potent Abeta-degrading enzyme in vivo. Deficiency of endogenous neprilysin elevates the level of Abeta in brains of neprilysinalterations in these same regions have been implicated in cognitive impairments of AD patients at an early stage of the disease. Furthermore, the level of neprilysin mRNA has been found to be significantly and selectively analysis using genetically engineered mice. Moreover, we have found that this pathology can be reduced by controlling the activity of an endogenous calpain inhibitor known as calpastatin, providing a possible approach for the pathogenesis of AD has opened up the possibility of neprilysh up-regulation as a novel preventive and therapeutic approach to AD. Since the expression level and activity of neprilysh are likely to be regulated by neuropeptides and their receptors, non-peptidic agonists for these receptors might be effective agents to maintain a sufficient level of Abeta catabolism in brains of the aderly! In addition to Abeta deposits, intraneuronal fibrillary lesions, such as neurofibrillary tangles, are also a pathological hallmark of AD, and the extent of the resultant cytoskeletal disruptions may be dependent upon the activity levels of proteolytic enrymes. Among proceases for which major cytoskeletal components are good substrates, calpains were shown to participate in excitotoxic stress-induced neuritic degeneration in our recent knockout mice in a gene dose-dependent manner, and an age-associated decline of neprilysin occurs in several regions of mouse brain. Neuropathological reduced in the hippocampus and temporal cortex of AD patients. A clarification of the role played by decreased neprilysin activity in the

treatment of diverse neurodegenerative disorders, including AD. Understanding molecular mechanisms of proteolysis in Alzheimer's disease: progress toward therapeutic interventions. Journal, Atticle, (JOURNAL ARTICLE) TI

General Review; (REVIEW) ď

Amyloid beta peptide (Abeta) is not only a major constituent of extracellular fibrillary pathologies in Alzheimer's disease (AD) brains, but is also physiologically produced and metabolized in neurons. This fact led us to the notion that an age-related decrease in Abeta catabolism may contribute to the molecular pathogenesis of AD, providing a rationale for seeking proteolytic enzymes that degrade Abeta in the brain. Our recent studies have demonstrated that neprilysin is the most potent Abeta-degrading enzyme in vivo. Deficiency of endogenous neprilysin elevates the level of Abeta in brains of neprilysinalterations in these same regions have been implicated in cognitive impairments of AD patients at an early stage of the disease. Furthermore, the clarification of the role played by decreased neprilysin activity in the pathogenesis of AD has opened up the possibility of neprilysin up-regulation as a novel preventive and therapeutic approach to AD. Since the expression knockout mice in a gene dose-dependent manner, and an age-associated decline level of neprilysin mRNA has been found to be significantly and selectively Neuropathological reduced in the hippocampus and temporal cortex of AD patients. A of neprilysin occurs in several regions of mouse brain. AB

legions, such as neurofibrillary tangles, are also a pathological hallmark of AD, and the extent of the resultant cytoskeletal disruptions may be dependent upon the activity levels of proteolytic enzymes. Among proteases for which major cytoskeletal components are good substrates, calpains were shown to participate in excitotoxic stress-induced neuritic degeneration in our recent analysis using genetically engineered mice. Moreover, we have found that this pathology can be reduced by controlling the activity of an endogenous calpain inhibitor known as calpastatin, providing a possible approach for the level and activity of neprilygin are likely to be regulated by neuropeptides and their receptors, might be effective agents to maintain a sufficient level of Abeta catabolism in brains of the elderly. In addition to Abeta deposits, intraneuronal fibrillary treatment of diverse neurodegenerative disorders, including AD. ដ

Alzheimer Disease: DT, drug therapy

Alzheimer Discose: PA, parhology

Amyloid beta-Protein: ME, metabolism Amyloid Precursor Protein Secretases

Amyloid beta-Protein Precursor: ME, metabolism

Aspartic Endopeptidases: ME, metabolism

Brain: EN, enzymology

Calcium-Binding Proteins: ME, metabolism

Calpain: AI, artagonists & inhibitors Calpain: ME, metabolism Cysteine Proteinsse Inhibitors: TU, therapeutic use

Endopeptidases

Neprilysin: BI, biosynthesis metabolism

\*Neprilysin: ME,

tau Proteins: ME, metabolism Neurites: PH, physiology Up-Regulation

(Cysteine Proteinase Inhibitors); 0 (tau Proteins); EC 3.4.- (Amyloid Precursor Protein Secretases); EC 3.4.beta-Protein Precursor); 0 (Calcium-Binding Proteins); 0 0 (Amyloid beta-Protein); 0 (Amyloid z

(Endopeptidases); EC 3.4.22.- (Calpain); EC 3.4.23.- (Aspartic Endopeptidases); EC 3.4.23.46 (BACEl protein, human); EC 3.4.23.46 (Bacel protein, mouse); EC 3.4.24.11 (Neprilysin)

MEDLINE on STN L152 ANSWER 28 OF 36

MEDLINE Full-text 2004600336 ACCESSION NUMBER: DOCUMENT NUMBER: TITLE:

pathomorphological changes in the hippocampus and [Effects of central administration of beta-amyloid peptide (25-35): PubMed 1D: 15573708

Isaledovanie effektov tsentral'nogo vvedenija beta-amiloidnogo peptida (25-35): patomorfologicheskie izmenenija v gippokampe i narushenie impairments of spatial memory].

Stepanichev M Iu; Zdobnova I M; Zarubenko I I; Lazareva N A; Guliaeva N V prostranstvennoi pamiati.

Zhurnal vysshei nervnoi deiatelnosti imeni I P Pavlova, (2004 Sep-Oct) Vol. 54, No. 5, pp. 705-11. Journal code: 9421551. ISSN: 0044-4677.

SOURCE: AUTHOR:

Russia: Russian Federation PUB. COUNTRY: DOCUMENT TYPE:

Journal; Article; (JOURNAL ARTICLE) ENGLISH ABSTRACT)

Priority Journals 200503 FILE SEGMENT: ENTRY MONTH: LANGUAGE:

Entered STN: 3 Dec 2004

ENTRY DATE:

Last Updated on STN: 22 Mar 2005 Entered Medline: 21 Mar 2005

month after the administration, animals were trained in an eight-arm radial maze. After the training, a histopathological investigation of the hippocampus was carried out using brain slices stained with hematoxylin/eosin. Abeta(25-15) induced impairments in reference and working memory in the eightrelationship between the amnesia induced by central administration intracerebroventricular injection of Abeta (25-35) at a dose of 15 nmol. of beta-amyloid (25-35) [Abeta(25-35)] and neurodegeneration in the hippocampus was studied. Male Wistar rats received a single ΑB

arm radial maze. A moderate decrease in neuronal cell number was demonstrated in the CA1, but not in the CA3.subfield of the hippocampus. The number of both reference and working errors negatively correlated with the number of neurons in hippocampal CA1. The results are the first evidence for a specific relationship between neurodegeneration in the CA1 subfield of rat hippocampus

and impairments of learning and memory induced by Abeta(25-35). [Effects of central administration of beta-amyloid peptide (25-35): pathomorphological changes in the hippocampus and II

impairments of spatial memory].

Isŝledovanie effektov tsentral nogo vvedenija beta -amiloidnogo peptida (25-35): patomorfologicheskie izmenenija v gippokampe i narushenie prostranstvennoi pamiati.

Zhurnal vysshei nervnoi deiatelnosti imeni I P Pavlova, (2004 တ္တ

Sep-Oct) Vol. 54, No. 5, pp. 705-11. Journal code: 9421551. ISSN: 0044-4677.

A possible relationship between the amnesia induced by central administration of beta-amyloid (25-35) [Abeta(25-35)] and neurodegeneration in the hippocampus was studied. Male Wistar rats received a single intracerebroventricular injection of Abeta(25-35) at a dose of 15 nmol. One month after the administration, animals were trained in an eight-arm radial maze. After the training, a histopathological investigation of the AB

both reference and working errors negatively correlated with the number of neurons in hippocampal CA1. The results are the first evidence for a specific relationship between neurodegeneration in the CA1 subfield of rat hippocampus hippocampus was carried out using brain slices stained with hematoxylin/eosin. Abeta(25-35) induced impairments in reference and working memory in the eightarm radial maze. A moderate decrease in neuronal cell number was demonstrated in the CA1, but not in the CA3 subfield of the hippocampus. The number of

and impairments of learning and memory induced by Abeta(25-35). Check Tags: Male ដ

Amyloid beta-Protein: AD, administration & dosage \*Amyloid beta-Protein: PD, pharmacology

Hippocampus: DE, drug effects Animals

Maze Learning: DE, drug effects Injections, Intraventricular \*Maze Learning: PH

Hippocampus: PP, physiopathology

'Hippocampus: PA, pathology

Memory Disorders: PA, pathology Memory Disorders: ET, etiology Memory: DE, drug effects \*Memory: PH, physiology

Memory Disorders: PP, physiopathology Neurons: PA, pathology Neurons: PH, physiology

administration & dosage pharmacology Peptide Fragments: AD, Peptide Fragments: PD,

Rats, Wistar

\*Space Perception: PH, physiology 0 (Amyloid beta-Procein); 0 (Peptide Fragments); 0 ( Space Perception: DE, drug effects Z

amyloid beta-protein (25-35))

MEDLINE Full-text MEDLINE on STN 2004083968 36 ANSWER 29 OF ACCESSION NUMBER:

PubMed ID: 14973420 DOCUMENT NUMBER:

Non-oncologic applications of radiolabeled peptides in nuclear medicine. Knight L C TITLE:

AUTHOR:

Imaging, Temple University School of Medicine, University Hospital, 1401 N. Broad Street, Philadelphia, PA 19140, Nuclear Medicine Division, Department of Diagnostic CORPORATE SOURCE:

lknight@temple.edu CONTRACT NUMBER:

R01 CA 96792 (NCI) R01 HL 54578 (NHLBI) SOURCE:

The quarterly journal of nuclear medicine : official publication of the Italian Association of Nuclear Medicine (AIMN) [and] the International Association of

Radiopharmacology (IAR), (2003 Dec) Vol. 47, No.

4, pp. 279-91. Ref: 58 Journal code: 9512274. ISSN: 1125-0135.

Italy PUB. COUNTRY: DOCUMENT TYPE:

Journal, Article; (JOURNAL ARTICLE)

(RESEARCH SUPPORT, U.S. GOV'T, P.H.S.) General Review; (REVIEW)

Priority Journals English FILE SEGMENT: LANGUAGE:

Last Updated on STN: 20 May 2004 Entered STN: 20 Feb 2004 200405 ENTRY MONTH: ENTRY DATE:

Entered Medline: 19 May 2004

peptides which bind to various components of thrombi have been tested. For targeting the fibrin component of thrombi, peptide analogues of fibrin or fragments of fibronectin which have a distinct binding domain for fibrin have ed peptides have been investigated for diagnostic imaging in a non-oncologic diseases. For imaging thromboembolic disease, AB

been studied. For targeting activated platelets within thrombi, linear and cyclic peptide antegonists of the glycoprotein IIb/IIIa receptor on platelets have been studied, as well as naturally occurring antegonists of this receptor which are found in venoms. Analogues of laminin and thrombospondin which bind to other receptors on platelets have also been tested. There is an approach which uses a peptide to target thrombin which is sequestered within a fibrin clot. Another area of investigation has been to develop an improved radiopharmaceutical for imaging sites of infection and/or inflammation. Peptides which would bind to leukocytes in vivo, such as antagonists to the tutienin receptor, chematactic peptides, interleukin. 9, or a platelet factor 4 analogue, have been radiolabeled for this purpose. These agents would enable imaging of both infection and inflammation. Development of a radiopharmaceutical for specifically imaging infection has focused on antimicrobial peptides such as human neutrophil defensin, ubiquicidin, human lactoferrin and alafosfalin, which are expected to bind selectively to

deposits (amyloid beta peptides), and the consequences of diabetes mellitus (human C-peptide)

Non-oncologic applications of radiolabeled peptides in nuclear medicine. Ţ

The quarterly journal of nuclear medicine : official publication of the Italian Association of Nuclear Medicine (AIMN) [and] the International Association of Radiopharmacology (IAR), (2003 Dec) Vol. 47, No. S

4, pp. 279-91. Ref: 58

Journal code: 9512274. ISSN: 1125-0135. Journal; Article; (JOURNAL ARTICLE) (RESEARCH SUPPORT, U.S. GOV'T, P.H.S.) Ы

General Review; (REVIEW)

Radiolabeled peptides have been investigated for diagnostic imaging in a variety of non-oncologic diseases. For imaging thromboembolic disease, peptides which bind to various components of thrombi have been tested. For AB

which are found in venoms. Analogues of laminin and thrombospondin which bind to other receptors on platelets have also been tested. There is an approach which uses a peptide to target thrombin which is sequestered within a fibrin clot. Another area of investigation has been to develop an improved been studied. For targeting activated platelets within thrombi, linear and cyclic peptide antagonists of the glycoprotein Ilb/IIIa receptor on platelets have been studied, as well as naturally occurring antagonists of this receptor lactoferrin and alafosfalin, which are expected to bind selectively to microorganisms and not to leukocytes. Radiolabeled peptides are also being explored as agents for assessing unstable atherosclerotic plaque (endothelin), targeting the fibrin component of thrombi, peptide analogues of fibrin or fragments of fibronectin which have a distinct binding domain for fibrin have analogue, have been radiolabeled for this purpose. These agents would enable imaging of both infection and inflammation. Development of a radiopharmaceutical for specifically imaging infection has focused on antimicrobial peptides such as human neutrophil defensin, ubiquicidin, human Peptides which would bind to leukocytes in vivo, such as antagonists to the tuftsin receptor, chemotactic peptides, interleukin- $\theta$ , or a platelet factor amyloid deposits (amyloid beta peptides), and the consequences of diabetes radiopharmaceutical for imaging sites of infection and/or inflammation. explored as agents for assessing unstable atherosclerotic plaque

"Alzheimer Disease: RI, radionuclide imaging Antimicrobial Cationic Peptides: DU, diagnostic use mellitus (human C-peptide). ដ

\*Diabetes Insipidus: RI, radionuclide imaging \*Arteriosclerosis: RI, radionuclide imaging

\*Infection: RI, radionuclide imaging

\*Inflammation: RI, radionuclide imaging Neoplasms: RI, radionuclide imaging

Nuclear Medicine: MT, methods

diagnostic use

\*Thrombosis: RI, radionuclide imaging \*Radiopharmaceuticals: DU,

L152 ANSWER 30 OF 36 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation DUPLICATE 5

2002:136047 BIOSIS Full-text PREV200200136047 ACCESSION NUMBER: DOCUMENT NUMBER:

Receptors for chemotactic formyl peptides as pharmacological targets. AUTHOR (S):

Yazawa, Hiroshi; Gong, Wanghua; Qiu, Cunping; Wang, Ji Ming Laboratory of Molecular Immunoregulation, Center for Cancer Le, Yingying (Reprint author), Yang, Yiming, Cui, Youhong; CORPORATE SOURCE:

Research, National Cancer Institute at Frederick, Frederick, MD, 21702, USA

microorganisms and not to leukocytes. Radiolabeled peptides are also being explored as agents for assessing unstable atherosclerotic plaque (endothelin),

International Immunopharmacology, (January, 2002)
Vol. 2, No. 1, pp. 1-13. print. ley@mail.ncifrf.gov

ISSN: 1567-5769

Article

General Review; (Literature Review) DOCUMENT TYPE:

LANGUAGE:

AB

Entered STN: 6 Feb 2002 English ENTRY DATE:

chemotactic agonist for FPR11. Activation of formyl peptide receptors results in increased cell migration, phagocytosis, release of proinflammatory mediators, and the signaling cascade culminates in heterologous desensitization of other STM receptors including chemokine receptors and CXCR4, two coreceptors for HIV-1. Thus, by interacting with a variety of exogenous and host-derived agonists, formyl peptide receptors may play important roles in proinflammatory and immunological diseases and constitute a novel group of pharmacological targets chemattractants for phagocytic leukocytes. In addition to the batterial peptide fMLF and the putative endogenously produced formylated peptides, a number of novel peptide agonists have recently been identified that selectively activate the high-selfinity fMLF receptor FPR and/or its low-affinity variant FPRLI, both of which belong to the seven-transmembrane (STM) of protein-coupled receptor (GPCN) superfamily. These agonists include peptide domains derived from the envelope proteins of human immunodeficiency virus type 1 (HIV-1) and at least three amyloidogenic polypeptides, the human acute phase protein serum amyloid A, the 42 amino acid from of beta amyloid peptide and a 21 amino acid fragment of human prion. Furthermore, a cleavage fragment of neutrophil granule-derived bactericidal cathelicidin, IL-37, is also a Last Updated on STN: 26 Feb 2002 Leukocytes accumulate at sites of inflammation and immunological reaction in response to locally existing chemotactic mediators. N-formyl peptides, such as fMet-Leu-Phe (fMLF), are some of the first identified and most potent

Receptors for chemotactic formyl peptides as pharmacological H

targets.

International Immunopharmacology, (January, 2002) Vol. 2, No. 1, S

pp. 1-13. print. ISSN: 1567-5769.

Leukocytes accumulate at sites of inflammation and immunological reaction in AB

response to locally existing chemotactic mediators. N-formyl peptides, such as fMet-Leu-Phe (FMLF), are some of the first identified and most potent chemoattractants for phagocytic leukocytes. In addition to the bacterial peptide fMLF and the putative endogenously produced formylated peptides, a number of novel peptide agonists have recently been identified that nelectively activate the high-affinity FMLF receptor FPR and/or its low-affinity variant FPRL, both of which belong to the seven-transmembrane (STM), G protein-coupled receptor (GPCR) superfamily. These agonists include peptide

G protein-coupled receptor (GPCR) superfamily. These agonists include peptide domains derived from the envelope proteins of human immunodeficiency virus . type I (HIV-1) and at least three amyloidogenic polypeptides, the human acute phase protein serum amyloid A. the 42 amino acid form of beta amyloid peptide and a 21 amino acid fragment of human prion. Furthermore, a cleavage fragment chemotactic agonist for FPRL1. Activation of formyl peptide receptors results in increased cell migration, phagocytosis, release of proinflammatory desensitization of other STM receptors including chemokine receptors CCR5 and CXCR4, two coreceptors for HIV-1. Thus, by interacting with a variety of exogenous and host-derived agonists, formyl peptide receptors may play important roles in proinflammatory and immunological diseases and constitute a of neutrophil granule-derived bactericidal cathelicidin, LL-37, is also a mediators, and the signaling cascade culminates in heterologous

Biochemistry and Molecular Biophysics; Immune System (Chemical novel group of pharmacological targets.

11

Coordination and Homeostasis); Pharmacology Parts, Structures, & Systems of Organisms

leukocytes: blood and lymphatics, immune system H

H

Diseases

Alzheimer's disease: behavioral and mental disorders, nervous system disease

Alzheimer Disease (MeSH) Diseases

H

immunological diseases: immune system disease Diseases H

prion diseases: prion disease

Prion Diseases (MeSH)

proinflammatory diseases: immune system disease Diseases

H H

Chemicals & Biochemicals

G-protein-coupled receptor; chemotactic formyl peptide receptors: pharmacological targets; chemotactic formyl peptides; fMet-Leu-Phe; non-steroidal antiinflammatory drugs

L152 ANSWER 31 OF 36 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on

2004:205264 BIOSIS Full-text ACCESSION NUMBER:

PREV200400205791 DOCUMENT NUMBER:

TITLE:

Possible role of Nogo - A in Alzheimer 's disease: association with Abeta plaques. Prinjha, R. K. [Reprint Author]; Hussain, I. [Reprint AUTHOR (S):

Author]; Rumar, U. [Reprint Author]; Richardson, J. C. [Reprint Author]; Harper, A. J. [Reprint Author]; Vinson,

M. [Reprint Author]; Burbidge, S. A. [Reprint Author]; Parsons, A. A. [Reprint Author]; Howlett, D. [Reprint

Author]

Alzheimer's Dis. Res., Neurol.-GI CEDD, GlaxoSmithKline, CORPORATE SOURCE:

Harlow, UK

SOURCE:

Society for Neuroscience Abstract Viewer and Itinerary Planner, (2003) Vol. 2003, pp. Abstract No. 880.3. http://srn.scholarone.com. e-file. Meeting Info.: 33rd Annual Meeting of the Society of Neuroscience. New Orleans, LA, USA. November 08-12, 2003.

Society of Neuroscience.

Conference; (Meeting) DOCUMENT TYPE:

Conference; Abstract; (Meeting Abstract)

English LANGUAGE:

Last Updated on STN: 14 Apr 2004 Entered STN: 14 Apr 2004 ENTRY DATE:

The function of axonal outgrowth inhibitors such as Nogo-A in blocking regeneration after CNS trauma is well known. We have previously described alterations in expression and function of Nogo-A in ALS (Dupuis et al 2002) and ischaemic stroke (Roberts et al 2002) but its possible role in the AB

overexpressing the human APPswedish mutant protein have been shown, on ageing to deposit plaques composed of Abeta peptide. Immunohistochemical analysis in mechanisms of Alzheimer's disease remains poorly understood. Transgenic mice this model, has identified abundant amyloid plaques in the cortex and

The distribution of a wide range of cell-type markers including GFAP and neurofilament has been employed in sections from these animals. O all these markers only Nogo-A and BACE (the enzyme responsible for amyloid peptide production from APP) were found to display immunoreactivity in a

structure forming a halo around the amyloid plaque. Temporal studies from 12 months onwards suggest that the Abeta plaques begin as small focal deposits that grow outwards. The pattern of Nogo-A and BACE staining at the periphery of plaques suggest that they may have a role in liberating soluble Abeta that

adds to the growing plague. In SHSYSY cells expressing mutant (swedish) APP, both transfected Nogo-A and B show prominent co-localisation with transfected BACE within the ER, a major site of Abeta production. A range of in vitro and in vivo models have been used to investigate this novel and intriguing interaction in more detail. In addition to its central role in blocking CNS regeneration our findings suggest a potentially important role for Nogo in the development of Alzheimer 's disease.

Possible role of Nogo - A in Alzheimer's disease: Ľ

S

BACE within the ER, a major site of Abeta production. A range of in vitro and in vivo models have been used to investigate this novel and intriguing interaction in more detail. In addition to its central role in blocking CNS regeneration our findings suggest a potentially important role for Nogo in the to deposit plaques composed of Abeta peptide. Immunohistochemical analysis in this model, has identified abundant amyloid plaques in the cortex and hippocampus. The distribution of a wide range of cell-type markers including GRAP and neurosilament has been employed in sections from these animals. Of all these markers only Nogo-A and BACE (the enzyme responsible for amyloid peptide production from APP) were found to display immunoreactivity in a structure forming a halo around the amyloid plaque. Temporal studies from 12 months onwards suggest that the Abeta plaques begin as small focal deposits regeneration after CNS trauma is well known. We have previously described alterations in expression and function of Nogo-A in ALS (DuPuis et al 2002) and ischaemic stroke (Roberts et al 2002) but its possible role in the mechanisms of Alzheimer's disease remains poorly understood. Transgenic mice overexpressing the human Appswedish mutant protein have been shown, on ageing, that grow outwards. The pattern of Nogo-A and BACE staining at the periphery of plaques suggest that they may have a role in liberating soluble Abeta that adds to the growing plaque. In SHSYSY cells expressing mutant (swedish) APP, both transfected Nogo-A and B show prominent co-localisation with transfected association with Abeta plaques.
Society for Neuroscience Abstract Viewer and Itinerary Planner, (
SOGIETY, 2003, pp. Abstract No. 880.3.
http://efn.scholarone.com. e-file.
Meeting Info: 33rd Annual Meeting of the Society of Neuroscience. New
Orleans, LA, USA. November 08-12, 2003. Society of Neuroscience.
The function of axonal outgrowth inhibitors such as Nogo-A in blocking AΒ

development of Alzheimer 's disease Ħ

Sciences); Nervous System (Neural Coordination); Neurology (Human Medicine, Medical Sciences); Psychiatry (Human Medicine Cardiovascular Medicine (Human Medicane, Medical , Medical Sciences)

Parts, Structures, & Systems of Organisms H

CNS: nervous system, amyloid plaques: nervous system, system, neurofilaments: nervous system, plaques: nervous system

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Altheimer's disease: behavioral and mental disorders, nervous system disease

Alzheimer Disease (MeSH)

Diseases

central nervous system trauma: injury, nervous system disease H

H

stroke: nervous system disease, vascular disease Diseases

Cerebrovascular Disorders (MeSH) Chemicals & Biochemicals

H

Abeta peptide; BACE; GFAP; Nogo; Nogo-A; amyloid; amyloid

1152 ANSWER 32 OF 36 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation

p.133

[Reprint author]; Noda, Y.; Kamei, H.; Tran, M. H.; Nagai, 27, No. 1, pp. 853. print. Meeting Info.: 31st Annual Meeting of the Society for Neuroscience. San Diego, California, USA. November 10-15, Urani, A. [Reprint author]; Romieu, P.; Roman, F. J. I.; Nabeshima, T.; Maurice, T. Biochimie/Enzymologie, Pfizer GRD, Fresnes, France Enhanced antidepressant effect of sigmal (sigmal) Society for Neuroscience Abstracts, (2001) Vol. Conference, (Meeting) . Conference, Abstract, (Meeting Abstract) 2001:575419 BIOSIS Full-text agonists in beta-amyloid Entered STN: 12 Dec 2001 peptide-treated rodents. PREV200100575419 ISSN: 0190-5295. English 2001. ACCESSION NUMBER: CORPORATE SOURCE: DOCUMENT NUMBER: DOCUMENT TYPE: ENTRY DATE: AUTHOR (S): LANGUAGE:

forced swim test. In this test, igmesine appeared more efficient in beta25-35 animals, by reducing immobility at 30 mg/kg vs. 60 mg/kg in control groups. Such facilitation was not observed with desploramine. Furthermore, beta25-35 animals exhibited decreased progesterone levels in the hippocampus (-47%). Second, in rats infused during 14 days with the beta1-40 amyloid peptide and submitted to the conditioned fear stress. In this test, (+)-SKP-10,047 reduced the stress-induced motor suppression at 3 mg/kg in beta1-40 peptide infused rats, vs. 6 mg/kg in beta40-1 treated rats. Igmesine presented an effect at 10 mg/kg in beta1-40 infused rats vs. 30 mg/kg in control rats. presented. The sigmal agonist efficacy is known to depend on neuro(active)steroids levels, synthesized mainly by gilal cells. These cells may be affected by b-amyloid toxicity. We suggest that sigmal agonists, due to their enhanced efficacy, may improve Alzheimer 's disease-related cognitive The sigmal receptor is a 223 amino acide protein involved in numerous behavioral effects. In particular, sigmal receptor agonists present potent antidepressant-like effects in several animal models of behavioral despair. The antidepressant efficacy of selective signal agonists was studied in two models of beta-amyloid-induced cognitive deficits. First, in mice injected centrally with beta25-35-amyloid peptide and submitted ten days after to Neurosteroid measurements and immunohistochemical studies will also be Last Updated on STN: 25 Feb 2002 deficits. AB

Enhanced antidepressant effect of sigmal (sigmal) agonists in beta-amyloid peptide-treated H

Society for Neuroscience Abstracts, (2001) Vol. 27, No. 1, pp. S

Meeting Info.: 31st Annual Meeting of the Society for Neuroscience. San Diego, California, USA. November 10-15, 2001. ISSN: 0190-5295.

forced swim test. In this test, igmesine appeared more efficient in beta25-35 animals, by reducing immobility at 30 mg/Kg vs. 60 mg/Kg in control groups. Such facilitation was not observed with desipramine. Furthermore, beta25-35 animals exhibited decreased progesterone levels in the hippocampus (-47%). behavioral effects. In particular, signal receptor agonists present potent antidepressant-like effects in several animal models of behavioral despair. The antidepressant efficacy of selective signal agonists was studied in two models of beta-amyloid-induced cognitive deficits. First, in mice injected centrally with beta25-35-amyloid peptide and submitted ten days after to The sigmal receptor is a 223 amino acide protein involved in numerous AB

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deficits. H

Behavior; Nervous System (Neural Coordination); Pharmacology Parts, Structures, & Systems of Organisms

glial cell: nervous system; hippocampus: nervous system H H

Alzheimer's disease: behavioral and mental disorders, nervous system disease Diseases

Alzheimer Disease (MeSH)

cognitive deficit: behavioral and mental disorders, nervous system disease Diseases

H

, toxicity; desipramine: antidepressant-drug, pharmacodynamics , potency, sigma-1 agonist; igmesine: antidepressant-drug, pharmacodynamics, potency, sigma-1 agonist; progesterone: SKF-10,047; beta-amyloid 1-40 peptide: central administration, toxicity; beta-amyloid 25-35 peptide: central administration Cognition Disorders (MeSH) Chemicals & Biochemicals regulation H

L152 ANSWER 33 OF 36 EMBASE COPYRIGHT (c) 2007 Elsevier B.V. All rights reserved on STN

2007455920 EMBASE Full-text
DNA vaccine and the CNS axonal regeneration.
Nie D.-Y.; Xu G.; Ahned S.; Xina Z.-C.
Z.-C. Xiao, Department of Clinical Research, Singapore ACCESSION NUMBER: CORPORATE SOURCE: AUTHOR

Current Pharmaceutical Design, (Aug 2007) Vol. 13, No. 24, General Hospital, Singapore, Singapore xiao.zhi.cheng@sgh.com.sg pp. 2500-2506. SOURCE:

ISSN: 1381-6128 CODEN: CPDEFP Netherlands Refs: 110 COUNTRY:

Immunology, Serology and Transplantation Clinical and Experimental Biochemistry Journal; General Review; (Review) DOCUMENT TYPE: PILE SEGMENT:

Psychiatry

Health Policy, Economics and Management Neurology and Neurosurgery Drug Literature Index 032 036 037 008

English English SUMMARY LANGUAGE: LANGUAGE:

Entered STN: 17 Oct 2007

ENTRY DATE:

Vaccines have been considered in treating many CNS degenerative disorders, including Alzheimer's disease (AD), Parkinson's disease (PD), Huntington's disease (HD), epilepsy, multiple sclerosis (MS), spinal cord injury (SCI), and DNA vaccines have emerged as novel therapeutic agents because of the Last Updated on STN: 17 Oct 2007 stroke. AB

MAG and OMOF, and fragments thereof, make them suitable vehicles for treatment of SCIs and MS. We need to obtain a deeper understanding of the immunologic mechanisms underlying the neuroprotective immunity to optimize the design of DNA vaccines for their use in clinical setting. In this review, we discuss recent findings suggesting that DNA vaccines hold a promising future for the treatment of axonal degeneration and demyelination. COPPYRGT. 2007 Bentham prevent axonal regeneration. For these reasons DNA vaccines encoding NOGO, simplicity of their generation and application. Myelin domponents such as NOGO, MAG and OMGP are known to trigger demyelinating autoimmunity and to Science Publishers Ltd.

Journal; General Review; (Review) AB H

Vaccines have been considered in treating many CNS degenerative disorders, including Alzheimer's disease (AD), Parkinson's disease (PD), Huntington's disease (HD), epilepsy, multiple sclerosis (MS), spinal cord injury (SCI), and stroke. DNA vaccines have emerged as novel therapeutic agents because of the simplicity of their generation and application. Myelin domponents such as NOGO, MAG and OMGP are known to trigger demyelinating autoimmunity and to prevent axonal tregeneration. For these reasons DNA vaccines encoding NOGO, MAG and OMGP, and fragments thereof, make them suitable vehicles for treatment of SCIs and MS. We need to obtain a deeper understanding of the immunologic DNA vaccines for their use in clinical setting. In this review, we discuss recent findings suggesting that DNA vaccines hold a promising future for the mechanisms underlying the neuroprotective immunity to optimize the design of treatment of axonal degeneration and demyelination. .COPYRGT. 2007 Bentham Science Publishers Ltd.

Medical Descriptors: ដ

Alzheimer disease: DT, drug therapy Alzheimer disease: PC, prevention brain injury: DT, drug therapy autoimmunity

\*degenerative disease: DM, disease management cost effectiveness analysis

\*degenerative disease: DT, drug therapy \*degenerative disease: PC, prevention demyelination

drug safety drug targeting drug efficacy drug cost

DT, drug therapy epilepsy: PC, prevention epilepsy:

Huntington chorea: DT, drug therapy humoral immunity

multiple sclerosis: DT, drug therapy Huntington chorea: PC, prevention immunization

multiple sclerosis: PC, prevention \*nerve fiber regeneration neuroprotection nonhuman

spinal cord injury: DT, drug therapy Parkinson disease: DT, drug therapy Parkinson disease: PC, prevention priority journal

spinal cord injury: PC, prevention stroke: DT, drug therapy stroke: PC, prevention T lymphocyte activation

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2007455917 EMBASE Full-text Targeting the Nogo-a signalling pathway to promote recovery A.R. Walmsley, Novartis Institutes for Biomedical Research, 4056 Basel, Switzerland. andrian\_robert.walmsley@novartis.c Current Pharmaceutical Design, (Aug 2007) Vol. 13, No. 24, L152 ANSWER 34 OF 36 EMBASE COPYRIGHT (c) 2007 Elsevier B.V. All rights lyase) 9024-13-9; (neurocan) 170276-50-3; (protein p75) 91608-97-8; myelin associated glycoprotein: EC, endogenous compound myelin basic protein: DT, drug therapy dendritic cell vaccine: DT, drug therapy
- DNA vaccine: AD, drug administration
- DNA vaccine: DT, drug therapy
- DNA vaccine: DT, intralymphatic drug administration
- DNA vaccine: IN, intranymphatic drug administration
- DNA vaccine: IN, intranassal drug administration
- DNA vaccine: PD, oral drug administration
- DNA vaccine: PD, pharmacoeconomics (amyloid beta protein) 109770-29-8; (chondroitin ABC proteochondroitin sulfate: EC, endogenous compound Journal; General Review; (Review) Alzheimer disease vaccine: DT, drug therapy ISSN: 1381-6128 CODEN: CPDEFP matrix metalloproteinase: DT, drug therapy matrix metalloproteinase: PD, pharmacology Nogo 66 receptor: EC, endogenous compound protein Nogo: EC, endogenous compound protein p75: EC, endogenous compound following acute CNS injury. brevican: EC, endogenous compound chondroitin ABC lyase: DT, drug therapy chondroitin ABC lyase: PD, pharmacology amyloid beta protein: DT, drug therapy monoclonal antibody: DT, drug therapy monoclonal antibody: PD, pharmacology drug therapy Walmsley A.R.; Mir A.K. neurocan: EC, endogenous compound neuromodulin: EC, endogenous compound tenascin: EC, endogenous compound versican: EC, endogenous compound pp. 2470-2484. Netherlands recombinant vaccine: DT. in 1: DT, drug therapy in 1: PD, pharmacology (versican) 126968-45-4 튭 reserved on STN ACCESSION NUMBER: CORPORATE SOURCE: AUTHOR: Z Z

AB AB

SOURCE:

DOCUMENT TYPE: FILE SEGMENT: COUNTRY:

Clinical and Experimental Biochemistry Clinical and Experimental Pharmacology Drug Literature Index

Neurology and Neurosurgery English

English SUMMARY LANGUAGE: ENTRY DATE: LANGUAGE:

DATE: Entered STN: 17 Oct 2007
Last Updated on STN: 17 Oct 2007
Functional recovery following acute CNS injury in humans, such as spinal cord injury and stroke, is exceptionally limited, leaving the affected individual AB

recovery can at least in part be attributed to the restriction of axonal regeneration and neuroplasticity by several CNS myelin proteins that have been shown to be potent inhibitors of neurite outgrowth in vitro, namely myelin-associated glycoprotein (MAG), Nogo-A and oligodendrocyte myelin glycoprotein (OMG9). Nogo-A contains multiple neurite outgrowth inhibitory domains exposed on the surface of myelinating oligodendrocytes located within its amino-terminal region (amino-Nogo-A) and C-terminal region (Nogo-66). Although structurally dissimilar; Nogo-66, MAG and OMG9 exert their inhibitory effects shown to significantly enhance axonal regeneration and neuroplasticity leading to improved functional recovery in animal models of acute CNS injury. These in vivo findings thus provide a sound basis for the development of an effective treatment for acute CNS injuries in humans. COPYRGT. 2007 Bentham by binding the GPI-linked neuronal Nogo-66 receptor (NgR) that transduces the inhibitory signal to the cell interior via transmembrane co-receptors LINGO-1 and p75(NTR) or TROY. Although the receptor(8) for amino-Nogo-A are unknown, amino-Nogo-A and NgR ligands meutally activate the small GTPase RhoA. Consistent with their neurite outgrowth inhibitory function, approaches counter-acting Nogo-A using function-blocking antibodies, NgR using peptide antagonists and receptor bodies or RhoA using deactivating enzymes have been effective treatment on the market for such injuries. This lack of functional with life-long neurological deficits such as loss of limb movement and sensation leading to a compromised quality of life. As yet, there is no Science Publishers Ltd.

sensation leading to a compromised quality of life. As yet, there is no effective treatment on the market for such injuries. This lack of functional recovery can at least in part be attributed to the restriction of axonal regeneration and neuroplasticity by several CNS myelin proteins that have been shown to be potent inhibitors of neurite outgrowth in vitro, namely myelin-associated glycoprotean (NAG). Nogo-A and oblgodendrocyte myelin glycoprotean (OMgp). Nogo-A contains multiple neurite outgrowth inhibitory domains exposed on the surface of myelinating oligodendrocytes located within its aminoshown to significantly enhance axonal regeneration and neuroplasticity leading terminal region (amino-Nogo-A) and C-terminal region (Nogo-66). Although structurally dissimilar, Nogo-66, MAG and OMgp exert their inhibitory effects by binding the GPI-linked neuronal Nogo-66 receptor (NSR) that transduces the inhibitory signal to the cell interior via transmembrane co-receptors LINGO-1 and p75(NTR) or TROY. Although the receptor(s) for amino-Nogo-A are unknown, amino-Nogo-A and NoR ligands mutually activate the small GTPase RhoA. Consistent with their neurite outgrowth inhibitory function, approaches counter-acting Nogo-A using function-blocking antibodies, NgR using peptide Functional recovery following acute CNS injury in humans, such as spinal cordinjury and stroke, is exceptionally limited, leaving the affected individual with life-long neurological deficits such as loss of limb movement and antagonists and receptor bodies or RhoA using deactivating enzymes have been to improved functional recovery in animal models of acute CNS injury. These in vivo findings thus provide a sound basis for the development of an effective treatment for acute CNS injuries in humans. . COPYRGT. 2007 Bentham Journal; General Review; (Review) Science Publishers Ltd.

\*central nervous system disease: DT, drug therapy carboxy terminal sequence drug efficacy drug receptor binding Medical Descriptors: enzyme activation drug targeting £

nerve cell plasticity

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cyclic AMP: EC, endogenous compound cyclic AMP dependent protein Kinase: EC, endogenous compound cyclic AMP responsive element binding protein: EC, endogenous compound cyldermal growth factor receptor kinase inhibitor: DT, drug
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immunoglobulin Gl antibody: DT, drug therapy
immunoglobulin Gl antibody: PD, pharmacology
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in 1: CE, intracerebral drug administration
in 1: PD, pharmacology
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                                                                                                                                                                                optic nerve injury: DT, drug therapy
                                                                                                                                                                                                                                                                                                                                                                                                     spinal cord injury: DT, drug therapy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               neurotrophin: EC, endogenous compound
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       bucladesine: CB, drug combination
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 calcium: EC, endogenous compound
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                bucladesine: DT, drug therapy
bucladesine: PD, pharmacology
nerve fiber growth nerve fiber regeneration
                                                                                                                                                                                                                                                                                                                                                                signal transduction
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Drug Descriptors:
                                                                                                                                                                                                                 priority journal
                                                                     neuroprotection
                                                                                                                                           oligodendroglia
                                                                                                                                                                                                                                                                                       quality of life
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              administration
                                                                                                                                                                                                                                                         protein domain
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                                                                                                              nonhuman
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  therapy
                                                                                                                                                                                                                                                                                                                                                                                                                                      stroke
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rolipram: CB, drug combination

Pizzi M.; Sarnico I.; Boroni F.; Benarese M.; Steimberg N.; Mazzoleni G.; Dietz G.P.H.; Bahr M.; Liou H.-C.; Spano P.F. M. Pizzi, Division of Pharmacology, Department of Biomedical Sciences and Biotechnologies, Viale Europa 11, 16980-89-5, 362-74-3; (calcium) 7440-70-2; (cyclic AMP responsive element binding protein) 130428-87-4, 130939-96-7; (cyclic AMP) 60-92-4; (mitogen activated protein kinase) 142243-02-5; (protein kinase C) 14435-78-4; (protein p75) 91608-97-8; (colipram) 61413-54-5; (tissue inhibitor of metalloproteinase 2) 124861-55-8; (tissue inhibitor of metalloproteinase 3) 145809-21-8, 164781-40-2 25123 Brescia, Italy. pizzi@med.unibs.it Cell Death and Differentiation, (Jul 2005) Vol. 12, No. 7, Opposite effects of nuclear factor-kB (NF-KB) on neuron survival rely on L152 ANSWER 35 OF 36 EMBASE COPYRIGHT (c) 2007 Elsevier B.V. All rights NF-kB factor c-Rel mediates neuroprotection elicited Drug Literature Index General Pathology and Pathological Anatomy Neurology and Neurosurgery rolipram: SC, subcutaneous drug administration tissue inhibitor of metalloproteinase 2: EC, endogenous compound tissue inhibitor of metalloproteinase 3: EC, endogenous compound Clinical and Experimental Biochemistry Clinical and Experimental Pharmacology by mGlu5 receptor agonists againts (amyloid beta protein) 109770-29-8; (bucladesine) Journal; General Review; (Review) Entered STN: 28 Jul 2005 Last Updated on STN: 28 Jul 2005 tumor necrosis factor: EC, endogenous compound Full-text Refs: 89 ISSN: 1350-9047 CODEN: CDDIEK 2005306458 EMBASE amyloid \$-peptide United Kingdom rolipram: DT, drug therapy rolipram: PD, pharmacology pp. 761-772. English English 030 037 900 800 reserved on STN unindexed drug ACCESSION NUMBER: SUMMARY LANGUAGE: CORPORATE SOURCE: DOCUMENT TYPE: FILE SEGMENT: ENTRY DATE: LANGUAGE: COUNTRY: SOURCE: AUTHOR: AB RN

induced cell death, c-Rel mediates prosurvival effects of interleukin-l $\beta$ . However, it is unknown whether activation of c-Rel-dependent pathways reduces neuron vulnerability to amyloid-( $\beta$ ), a peptide implicated in Alzheimer's disease pathogenesis. We show that neuroprotection elicited by activation of metabotropic glutamate receptors type 5 (mGlu5) against A $\beta$  toxicity depends on c-Rel activation. A. beta. peptide induced NF-kB factors p50 and p65. The mGlu5 agonists activated c-Rel, besides p50 and p65, and the expression of manganese superoxide dismutase (MnSOD) and Bcl.-X(L). Targeting c-Rel expression by RNA interference suppressed the induction of both antiapoptotic genes. Targeting c-Rel or Bcl.-X(L) prevented the prosurvaval effect of mGlu5 agonists. Conversely, c-Rel overexpression or TAT-Bcl-X(L) addition rescued neurons from AB toxicity. These data demonstrate that mClu5 receptor activation promotes a c-Rel-dependent antiapoptotic pathway responsible for activation of diverse NF-kB factors. While p65 is necessary for glutamate-

neuroprotection against A. beta. peptide. .COPYRGT. 2005 Nature Publishing NP-KB factor c-Rel mediates neuroprotection elicited by mGlu5 receptor agonists againts amyloid Journal, General Review; (Review) H A P

metabotropic glutamate receptors type 5 (mGlu5) against Aeta toxicity depends on However, it is unknown whether activation of c-Rel-dependent pathways reduces disease pathogenesis. We show that neuroprotection elicited by activation of c-Rel activation. A. beta. peptide induced NF-KB factors p50 and p65. The mGlUs agonists activated c-Rel, besides p50 and p65, and the expression of manganese superoxide dismutase (MnSOD) and BCl-X(L). Targeting c-Rel expression by RNA interference suppressed the induction of both antiapoptotic genes. Targeting c-Rel or Bcl-X(L) prevented the prosurvival effect of mGlu5 agonists. Conversely, c-Rel overexpression or TAT-Bcl-X(L) addition rescued neuron vulnerability to amyloid- $\beta$  (A $\beta$ ), a peptide implicated in Alzheimer's activation promotes a c-Rel-dependent antiapoptotic pathway responsible for neuroprotection against A. beta. peptide. COPYRGT. 2005 Nature Publishing activation of diverse NF-kB factors. While p65 is necessary for glutamateinduced cell death, c-Rel mediates prosurvival effects of interleukin-1etaOpposite effects of nuclear factor-kB (NF-KB) on neuron survival rely on neurons from Aβ toxicity. These data demonstrate that mGlu5 receptor Group. All rights reserved. t

Medical Descriptors:

\*Alzheimer disease: ET, etiology animal cell

controlled study drug mechanism cell survival

gene overexpression induction gene targeting

human

neuroprotection mouse

priority journal neurotoxicity pathogenesis nonhuman

protein expression protein function protein induction protein targeting

RNA interference

ដ

Drug Descriptors: 2 chloro 5 hydroxyphenylglycine

3 hydroxyphenyglycine: PD, pharmacology amino acid receptor stimulating agent: PD, pharmacology glutamate receptor 5: EC, endogenous compound amyloid beta protein

immunoglobulin enhancer binding protein: EC, endogenous compound glutamate receptor agonist: PD, pharmacology protein bcl x1: EC, endogenous compound protein p50: EC, endogenous compound

superoxide dismutase: EC, endogenous compound small interfering RNA: PD, pharmacology synaptotagmin: EC, endogenous compound

transactivator protein: EC, endogenous compound \*transcription factor Rel: EC, endogenous compound unclassified drug

Z

(amyloid beta protein) 109770-29-8; (protein bcl xl) 151033-38-4; (superoxide dismutase) 37294-21-6, 9016-01-7, 9054-89-1; (synaptotagmin) 134193-26-3, 134193-27-4

L152 ANSWER 36 OF 36 EMBASE COPYRIGHT (c) 2007 Elsevier B.V. All rights 2005122738 EMBASE Full-text New therapeutic strategies and drug candidates reserved on STN ACCESSION NUMBER:

for neurodegenerative diseases: p53 and  $TNF-\alpha$ inhibitors, and GLP-1 receptor agonists

N.H. Greig, Drug Design and Development Section, Laboratory of Neurosciences, Gerontology Research Center, 5600 Nathan Shock Drive, Baltimore, MD 21224, United States Greig N.H.; Mattson M.P.; Perry T.; Chan S.L.; Giordano T.; Sambamurti K.; Rogers J.T.; Ovadía H.; Lahiri D.K. CORPORATE SOURCE:

AUTHOR:

Annals of the New York Academy of Sciences, (2004) Vol. greign@grc.nia.nih.gov 1035, pp. 290-315.

SOURCE:

Refs:

ISSN: 0077-8923 CODEN: ANYAA9 United States

Journal; Conference Article; (Conference paper) Clinical and Experimental Pharmacology COUNTRY: DOCUMENT TYPE:

Drug Literature Index FILE SEGMENT:

Toxicology

052

Neurology and Neurosurgery English 900 SUMMARY LANGUAGE: LANGUAGE:

Entered STN: 31 Mar 2005 English ENTRY DATE:

AB

Americans and Europeans continue to rise. Regrettably, accompanying this increase in life span, there has been an increase in the number of individuals afflicted with age-related neurodegenerative disorders, such as Alzheimer's disease, Parkinson's disease, and stroke. Although different cell types and brain areas are vulnerable among these, each disorder likely develops from activation of a common final cascade of biochemical and cellular events that eventually lead to neuronal dysfunction and death. In this regard, different triggers, including oxidative damage to DNA, the overactivation of glutamate receptors, and disruption of cellular calcium homeostasis, albeit initiated by different genetic and/or environmental factors, can instigate a cascade of intracellular events that induce apoptosis. To forestall the neurodegenerative process, we have chosen specific targets to inhibit that are at pivotal rate-limiting steps within the pathological cascade. Such targets include TNF- $\alpha$ , p53, and GLP-1 receptor. The cytokine TNF- $\alpha$  is elevated in-Alzheimer's disease, Parkinson's disease, stroke, and amyotrophic lateral sclerosis. Its synthesis can be reduced via posttranscriptional mechanisms with novel analogues of the classic drug, thalidomide. The intracellular protein and transcription factor, p53, is activated by the Alzheimer's disease neural cell death. It is inactivated by novel tetrahydrobenzothiazole and oxazole analoques to rescue cells from lethal invalts. Stimulation of the glucagon-like peptide-1 receptor (GLP-IR) in brain is associated with neurotrophic functions that, additionally, can protect cells against excess Last Updated on STN: 31 Mar 2005 Owing to improving preventative, diagnostic, and therapeutic measures for cardiovascular disease and a variety of cancers, the average ages of North toxic peptide,  $A\beta$ , as well as by excess glutamate and hypoxia to trigger

glutamate and other toxic insults. .COPYRGT. 2004 New York Academy of

Annals of the New York Academy of Sciences, (2004) Vol. 1035, pp. 290-315. neurodegenerative diseases: p53 and TNF- $\alpha$  inhibitors, and GLP-1 New therapeutic strategies and drug candidates for Ţ S

ISSN: 0077-8923 CODEN: ANYAA9

Owing to improving preventative, diagnostic, and therapeutic measures for cardiovascular disease and a variety of cancers, the average ages of North Americans and Europeans continue to rise. Regrettably, accompanying this increase in life apan, there has been an increase in the number of individuals afflicted with age-related neurodegenerative disorders, such as Alzheimer's disease, Parkinson's disease, and stroke. Although different cell types and brain areas are vulnerable among these, each disorder likely develops from activation of a common final cascade of biochemical and cellular events that eventually lead to neuronal dysfunction and death. In this regard, different triggers, including oxidative damage to DNA, the overactivation of glutamate receptors, and disruption of cellular calcium homeostasis, albeit initiated by different genetic and/or environmental factors, can instigate a cascade of intracellular events that induce apoptosis. To forestall the neurodegenerative process, we have chosen specific targets to inhibit that are at pivotal rate-limiting steps within the pathological cascade. Such targets included TNP-cu, psj, and GLP-l receptor. The cytchine TNP-cu is elevated in Alzheimer's disease, Parkinson's disease, stroke, and amyotrophic lateral solerosis. Its synthesis can be reduced via posttranscriptional mechanisms with novel analogues of the classic drug, thalidomide. The intracellular protein and transcription factor, psj, is activated by the Alzheimer's disease toxic poptide, A[\$, as well as by excess glutamate and hypoxia to trigger neural cell death. It is inactivated by novel tetrahydrobenzothiazole and glucagon-like peptide-1 receptor (GLP-IR) in brain is associated with neurotrophic functions that, additionally, can protect cells against excess glutamate and other toxic insults. COPYRGT. 2004 New York Academy of oxazole analogues to rescue cells from lethal insults. Stimulation of the

Medical Descriptors: ដ

amyotrophic lateral sclerosis: DT, drug therapy Alzheimer disease: DT, drug therapy apoptosis

calcium homeostasis brain region

"degenerative disease: DT, drug therapy conference paper drug synthesis

genetic transcription environmental factor enzyme inhibition drug targeting

heredity

Parkinson disease: DT, drug therapy nerve cell necrosis oxidative stress nonhuman

2',6' dithiothalidomide: DV, drug development 2',6' dithiothalidomide: PD, pharmacology stroke: DT, drug therapy Drug Descriptors:

ដ

3 thiothalidomide: DV, drug development

3 thiothalidomide: PD, pharmacology

3,2',6' trithiothalidomide: DV, drug development 3,2',6' trithiothalidomide: PD, pharmacology 3,6' dithiothalidomide: DV, drug development

3,6' dithiothalidomide: PD, pharmacology 6' thiothalidomide: DV, drug development

6' thiothalidomide: PD, pharmacology

amyloid beta protein: EC, endogenous compound antiparasitic agent: PD, pharmacology

calcium: EC, endogenous compound

cyclooxygenses 1 inhibitor: DT, drug therapy cyclooxygenses 1 inhibitor: PD, pharmacology cyclooxygenses 2 inhibitor: DT, drug therapy cyclooxygenses 2 inhibitor: PD, pharmacology dithioglutarimide: DV, drug development dithioglutarimide: PD, pharmacology dithiophthalimide: DV, drug development

etanercept: IV, intravenous drug administration dithiophthalimide: PD, pharmacology

etanercept: PD, pharmacology etanercept: SC, subcutaneous drug administration

exendin 4: DV, drug development
exendin 4: DV, drug development
exendin 4: DV, drug development
exendin 4: DV, pharmacology
glucagon like peptide 1: EC, endogenous compound
\*glucagon like peptide 1: EC, endogenous compound
\*glucagon like peptide 1 receptor agonist: DV, drug development
\*glucagon like peptide 1 receptor agonist: DV, drug therapy
\*glucagon like peptide 1 receptor agonist: DV, drug development
\*flormone receptor: EC, endogenous compound
\*hormone receptor stimulating agent: DV, drug development
\*hormone receptor stimulating agent: DV, drug therapy
\*hormone receptor stimulating agent: DV, drug therapy
\*hormone receptor stimulating agent: DP, pharmacology
infliximab: DV, pharmacology
infliximab: EC, subcutanenous drug administration
infliximab: EC, subcutanenous drug administration
infliximab: EC, subcutanenous drug administration

oxazole derivative: DV, drug development .

\*protein inhibitor: AN, drug analysis \*protein inhibitor: DV, drug development \*protein inhibitor: DT, drug therapy \*protein inhibitor: TO, drug therapy oxazole derivative: PD, pharmacology pifithrin alpha: PD, pharmacology

\*protein inhibitor: PO, oral drug administration \*protein inhibitor: PD, pharmacology

protein p53: EC, endogenous compound \*protein p53 inhibitor: DV, drug development

tetrahydrobenzothiazole: DV, drug development tetrahydrobenzothiazole: PD, pharmacology \*protein p53 inhibitor: DT, drug therapy \*protein p53 inhibitor: PD, pharmacology

drug development thalidomide: AN, drug analysis thalidomide: DV, drug developme

thalidomide: PO, oral drug administration thalidomide: DT, drug therapy thalidomide: TO, drug toxicity thalidomide: PD, pharmacology

tumor necrosis factor alpha: EC, endogenous compound drug development thiazole derivative: PD, pharmacology thiazole derivative: DV,

# CORE Search Results Details for Application 10553669 and Search Result 20071121\_092710\_us-10-55... Page 2 of 30

### SCORE Search Results Details for Application 10553669 and Search Result 20071121\_092710\_us-10-553-669-

Score Home Page Retrieve Application List SCORE System Overview SCORE FAQ Comments / Suggestions 4.rup.

This page gives you Search Results detail for the Application 10553669 and Search Result 20071121\_092710\_us-10-553-669-4.rup.

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GenCore version 6.2.1 Copyright (c) 1993 - 2007 Biocceleration Ltd. Om protein - protein search, using sw model

(without alignments) 2284.144 Million cell updates/sec November 21, 2007, 09:27:44 ; Search time 150 Seconds Run on:

1711 1 PCPGACVCYNEPKVTTSCPQ.......1DEEPLGLPKCCQPDAADKA 319 US-10-553-669-4 Perfect score: ritle:

Gapop 10.0 , Gapext 0.5 Scoring table: Seguence:

3281787 segs, 1072124677 residues Searched: 3281787 Total number of hits satisfying chosen parameters:

Minimum DB seg length: 0 Maximum DB seg length: 200000000

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

UniProt\_8.4:\*
1: uniprot\_sprot:\*
2: uniprot\_trembl:\* Database

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Q9bzr6 homo sapien macaca fasc mus musculu rattus norv brachydanio brachydanio Description 099pi8 0 Q6dh76 Q6x3y5 Q6DH76\_BRARE Q6X3Y5\_BRARE RIN4R\_HUMAN RTN4R\_MOUSE H 80 Query Match Length 54.2 54.2 45.3 5.3 100.0 Score 927.5 Result Š

ttp://cs/ScoreAccessWeb/GetItem.action?AppId=10553669&seqId=09323b678059e7c0&ItemName=20... 11/27/2007

tetraodon n Q7m6z0 mus musculu

Q4rru8

Q4RRU8\_TETNG R4RL2\_MOUSE

2 brachydanio 3 homo sapien 9 homo sapien 1 rattus norv 5 mus musculu 0 rattus norv 1 brachydanio 4 tetraodon n	<b>-</b>	tetra petro tetra rattu sus s homo mus m mus n	bos homo homo homo mus mus
Q6wzd2 Q86un3 Q1719 Q80wd1 Q80wd1 Q80wd0 Q6wzd1 Q6wzd1	Q483K9 Q486K9 Q6w2d3 Q6w3p3 Q6w3p3 Q6w3p3 Q6w3p4 Q6g090 Q9g090 Q9g090	Q48bC7 Q6e4j7 Q6e4j7 Q45r42 Q1k652 Q1g9 Q501g9 P83sG0 Q99ph1 Q99ph4	Q58cs0 Q4jiwo Q9bhal Q8tayo Q9hcj2 Q9c95 Q5055
Q6WZDZ_BRARE R4RLZ_HUMAN Q17RL9_HUMAN R4RL1_RAT R4RL1_MOUSE R4RL1_MOUSE R4RL1_RAT Q6WZDI_BRARE Q4RRQ4_TETNO	04.5519_TETNG 04.5516_TETNG 04.59P3_TETNG 06.61W3_XENLA 05.571_HUMAN 08.6X1_HUMAN 08.6X1_HUMAN 08.6X1_HUMAN 08.6X1_HUMAN 04.030_HUMAN	Q45BT7 TETNG Q6E4J7 PETNA Q45U6B TETNG Q45R42_RAT Q1KS52 PIG LRC24_HUMAN NYX_MOUSE LRRC4_MOUSE LRRC4_MUNCK Q310Y3 BOVIN	QS8CSO_BOVIN Q4JIWO_HUMAN LRCZ4_MOUSE QRTZ4_HUMAN NGL1_HUMAN NGL1_MOUSE QS0SES_MOUSE
22222222			884848
44444446 722424446 8004033704	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	930 930 930 930 930 930 930 930 930 930	602 640 605 605 640 640
4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	20.3 20.1 20.1 20.1 20.1 20.1 20.1
73.5 773 772 771 760 750 750 760	405 6 2 5 8 8 6 2 6 9 8 8 6 2 6 9 8 13 4 2 13 13 13 13 13 13 13 13 13 13 13 13 13		333 444446 644446 74446 7446 7446 7446 7
113	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	1 2 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	0 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1

### ALIGNMENTS

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Fournier A.E., GrandFre T., Strittmatter S.M.; "Identification of a receptor mediating Nogo-66 inhibition of axonal
                                                                                                                                                                                Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Euarchontoglires; Primates; Haplorrhini;
Catarrhini; Hominidae; Homo.
                                                                                                               Reticulon-4 receptor precursor (Nogo receptor) (NgR) (Nogo-66
                                                                                                                                                                                                                                                                                                                            MEDLINE=21069055; Pubmed=11201742; DOI=10.1038/35053072;
                                                                                                                                                    Name=RTN4R; Synonyms=NOGOR; ORFNames=UNQ330/PRO526;
                                                      25-NOV-2002, integrated into UniProtKB/Swiss-Prot.
                  PRT; 473 AA.
                                                                         01-JUN-2001, sequence version 1. 27-JUN-2006, entry version 54.
                                                                                                                                                                                                                                                                                        NUCLEOTIDE SEQUENCE [MRNA].
                  STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                       Nature 409:341-346(2001)
                                                                                                                                                                          Homo sapiens (Human).
                  RTN4R HUMAN
                                      Q9BZR6;
HUMAN
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ttp://es/ScoreAccessWeb/Get1tem.action?AppId=10553669&seq1d=09323b678059e7c0&ItemName=20... 11/27/2007

# CORE Search Results Details for Application 10553669 and Search Result 20071121\_092710\_us-10-55... Page 2 of 29

# SCORE Search Results Details for Application 10553669 and Search Result 20071121\_092710\_us-10-553-669-5.rup.

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This page gives you Search Results detail for the Application 10553669 and Search Result 20071121\_092710\_us-10-553-669-5.rup.

Go Back to previous page

```
GenCore version 6.2.1
Copyright (c) 1993 - 2007 Biocceleration Ltd.
```

OM protein - protein search, using sw model

Run on: November 21, 2007, 09:27:44 ; Search time 133 Seconds

(without alignments)
2284.144 Million cell updates/sec

Title: US-10-553-669-5

Perfect score: 1511
Sequence: 1 CPGACVCYNEPKVTTSRPQQ.......QRLAGRDLKRLATSDLEGGA 284

Scoring table: BLOSUM62 Gapop 10.0 , Gapext 0.5 Searched: 3281787 segs, 1072124677 residues

Fotal number of hits satisfying chosen parameters: 3281787

Minimum DB seq length: 0 Maximum DB seq length: 200000000 Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

Database : UniProt\_8.4:\*
1: uniprot\_sprot:\*
2: uniprot\_trembl:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

### SUMMARIES

esult No.	Score	Query Match	Query Match Length DB ID	80	ai	Description
			. !	;		
	1481	98.0	473	-	RTN4R_RAT	Q99m75 rattus norv
~	1444	95.6	473	-	RTN4R_MOUSE	099pi8 mus musculu
٣	1352	89.5	473	-	RTN4R MACFA	Q9n0e3 macaca fasc
4	1351	89.4	473	-	RTN4R HUMAN	Q9bzr6 homo sapien
'n	910	60.2	479	~	Q6DH76_BRARE	Q6dh76 brachydanio
9	910	60.2	479	N	Q6X3Y5_BRARE	Q6x3y5 brachydanio
7	730.5	48.3	478	7	Q6WZD2_BRARE	Q6wzd2 brachydanio
•	729 5	48 3	420	-	BARL HIMAN	OBGun 1 homo sapien

ttp://cs/ScoreAccessWeb/GetItem.action?AppId=10553669&seqId=09323b678059e7c1&ItemName=20... 11/27/2007

	Q6wzdl brachydanio	Q86un2 homo sapien	Q4rru8 tetraodon n	Q7m6z0 mus musculu	Q8k0s5 mus musculu	Q80wdl rattus norv	Q4rrg4 tetraodon n	Q80wd0 rattus norv	Q4s3k9 tetraodon n	Q4s616 tetraodon n	Q6wzd3 brachydanio	Q45r42 rattus norv	Q99phl mus musculu	Q9hbwl homo sapien	Q5jy13 homo sapien	Q6nui6 homo sapien	Q3i0y3 bos taurus	Q58cs0 bos taurus	Q4s9p3 tetraodon n	Q4g0s0 homo sapien	Q66iw3 xenopus lae	Q4sbt7 tetraodon n	POC192 mus musculu	Q9gzu5 homo sapien	Q2mls4 homo sapien	Q9nt99 homo sapien	Q4jiw0 homo sapien	Q9hcj2 homo sapien	Q8c031 mus musculu	Q505e5 mus musculu	Q6e4j7 petromyzon		Q2ye77 eptatretus	Q2ye78 eptatretus	Q32r29 eptatretus	Q2vgp9 petromyzon
2 Q17RL9_HUMAN	2 Q6WZD1_BRARE	1 R4RL1_HUMAN	2 Q4RRU8 TETNG	1 R4RL2 MOUSE	1 R4RL1 MOUSE	1 R4RL2 RAT	2 Q4RRQ4 TETNG	1 R4RL1 RAT	2 Q4S3K9_TETNG	2 Q4S6L6 TETNG	2 Q6WZD3_BRARE	2 Q45R42_RAT	1 LRRC4_MOUSE	1 LRRC4 HUMAN	2 QSJY13 HUMAN	2 Q6NUI6_HUMAN	2 Q3IOY3 BOVIN	2 Q58CS0_BOVIN	2 Q4S9P3_TETNG	2 Q4G0S0_HUMAN	2 Q66IW3_XENLA	2 Q4SBT7_TETNG	1 LRC4B_MOUSE	1 NYX HUMAN	2 Q2M1S4 HUMAN	1 LRC4B_HUMAN	2 Q4JIWO_HUMAN	1 NGL1_HUMAN	1 NGL1_MOUSE	2 Q505E5_MOUSE	2 Q6E4J7_PETMA	2 Q4SU68_TETNG	2 Q2YE77_EPTST	2 Q2YE78_EPTST	2 Q32R29_EPTBU	2 Q2VGP9_PETMA
420	457	441	412	420	445	420	310	445	324	411	458	652	652	653	762	778	597	602	411	692	466	935	709	481	481	713	640	640	640	640	417	339	370	370	393	257
48.3	48.1	48.0	47.7	47.7	47.5	47.4	47.3	47.2	44.8	43.5	41.8	23.9	.23.7	23.7	23.7	23.7	23.5	23.5	23.3	23.2	23.2	23.2	22.7	22.4	22.4	22.4	22.3	22.2	22.2	22.2	22.1	22.1	21.9	21.9	21.7	21.7
729.5	726.5	725.5	721.5	721.5	717.5	716.5	714.5	712.5	677	657.5	631.5	360.5	357.5	357.5	357.5	357.5	354.5	354.5	352	350.5	350	350	342.5	338.5	338.5	338.5	337.5	335.5	335.5	335.5	334	333.5	330.5	330.5	328.5	327.5
on	10	11	12	13	14	15	16	17	18	19	20	21	22	23		25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	4.5

### ALIGNMENTS

```
RESULT 1

RINAR_RAT STANDARD; PRT; 473 AA.

D RINAR_RAT STANDARD; PRT; 473 AA.

C 099M75;

OT 25-NOV-2002, integrated into UniProtKB/Swiss-Prot.

OT 10-MAY-2005, sequence version 2.

OT 27-JUN-2006, entry version 41.

DE Reticulon-4 receptor precursor (Nogo receptor) (NgR) (Nogo-66

E receptor).

Name=Rtn4r; Synonyms=Nogor;

N Name=Rtn4r; Synonyms=Nogor;

N Name=Rtn4r; Synonyms=Nogor;

N Name=Rtn4r; Synonyms=Nogor;

N Name=Rtn4r; Synonyms=Nogor;

N Name=Rtn4r; Synonyms=Nogor;

N Name=Rtn4r; Synonyms=Nogor;

N NGB_TAROPOLE (Nordata; Craniata; Vertebrata; Euteleostomi;

M NCB_TAROPOLE (Nordata; Craniata; Vertebrata; Euteleostomi;

N NCB_TAROPOLE (NAMA).

R NUCLEOTIDE SEQUENCE (MRNA).

R STRAIN=Spraque-Dawley;

N NCB_TAROPOLE NAME (NAMA).

R STRAIN-Spraque-Dawley;

N NGB_TAROPOLE (MRNA).

R STRAIN-Spraque-Dawley;

N NGD receptor.

N NGO receptor.

R Submitted (MAR-2001) to the EMBL/GenBank/DDBJ databases.

R 12]
```

ttp://es/ScoreAccessWeb/GetItem.action?AppId=10553669&seqId=09323b678059e7c1&ItemName=20... 11/27/2007

# CORE Search Results Details for Application 10553669 and Search Result 20071121\_092710\_us-10-55... Page 2 of 30

### SCORE Search Results Details for Application 10553669 and Search Result 20071121\_092710\_us-10-553-669-6.rup.

Score Home Page Retrieve Application List SCORE System Overview SCORE FAQ Comments / Suggestions

This page gives you Search Results detail for the Application 10553669 and Search Result 20071121\_092710\_us-10-553-669-6.rup.

Go\_Back\_to\_previous\_page

```
November 21, 2007, 09:27:44 ; Search time 149 Seconds (without alignments) 2284.144 Million cell updates/sec
GenCore version 6.2.1
Copyright (c) 1993 - 2007 Biocceleration Ltd.
                                                                                                                       OM protein - protein search, using sw model
                                                                                                                                                                                       Run on:
```

1 CPGACVCYNEPKVTTSRPQQ......TDEELLGLPKCCQPDAADKA 318 US-10-553-669-6 1695 ritle: Perfect score: Seguence:

Fotal number of hits satisfying chosen parameters: 3281787 segs, 1072124677 residues Gapop 10.0 , Gapext 0.5 Minimum DB seq length: 0 Maximum DB seq length: 200000000 Scoring table: Searched:

3281787

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution. 1: uniprot\_sprot:\*
2: uniprot\_trembl:\* UniProt\_8.4:\* Database

Post-processing: Minimum Match Of Maximum Match 100% Listing first 45 summaries

Result No.

SUMMARIES

Description	Q99m75 rattus norv	Q99pi8 mus musculu	Q9n0e3 macaca fasc	Q9bzr6 homo sapien	. Q6dh76 brachydanio	Q6x3y5 brachydanio	Q86un3 homo sapien	Q17r19 homo sapien
. qı	1665 98.2 473 1 RTN4R_RAT	RTN4R_MOUSE	RTN4R_MACFA	RIN4R HUMAN	Q6DH76_BRARE	Q6X3Y5_BRARE	R4RL2 HUMAN	Q17RL9_HUMAN
DB	-	٦	٦	-	7	7	н	7
Query Match Length DB	473	473	473	473	479	479	420	420
Query Match	98.2	95.0	88.0	87.8	54.9	54.9	43.5	43.5
Score	1665	1611	1492	1489	930.5	930.5	738	738
። :	-	7	~	4	ร	9	^	80

ttp://cs/ScoreAccessWeb/GetItem.action?AppId=10553669&seq1d=09323b678059e7c2&ItemName=20... 11/27/2007

Q86un2 homo sapien	Q6wzd2 brachydanio	Q8k0s5 mus musculu	Q4rru8 tetraodon n	Q6wzdl brachydanio	Q7m6z0 mus musculu	Q80wd0 rattus norv	Q80wdl rattus norv	Q4rrg4 tetraodon n	Q4s3k9 tetraodon n	Q4s616 tetraodon n	Q6wzd3 brachydanio	Q45r42 rattus norv	Q99phl mus musculu	Q9hbwl homo sapien	Q3i0y3 bos taurus	Q58cs0 bos taurus	Q5jyl3 homo sapien	Q6nui6 homo sapien	Q4sbt7 tetraodon n	Q4s9p3 tetraodon n	Q4g0s0 homo sapien	Q66iw3 xenopus lae	POC192 mus musculu	Q9gzu5 homo sapien	Q2mls4 homo sapien	homo	Q4jiw0 homo sapien	Q9hcj2 homo sapien	Q8c031 mus musculu	Q505e5 mus musculu	Q7zxi2 xenopus lae	Q6e4j7 petromyzon	Q4su68 tetraodon n	QSt0v4 homo sapien	homo	075093 homo sapien
R4RL1 HUMAN	Q6WZDZ_BRARE	R4RL1_MOUSE	O4RRUB_TETING	O6WZD1 BRARE	R4RL2_MOUSE	R4RL1_RAT	R4RL2_RAT	Q4RRQ4_TETNG	Q4S3K9 TETNG	Q4S6L6 TETNG	Q6WZD3_BRARE	Q45R42_RAT	LRRC4_MOUSE	LRRC4_HUMAN	Q310Y3_BOVIN	Q58CS0_BOVIN	Q5JY13_HUMAN	Q6NUI6_HUMAN	Q4SBT7_TETNG	Q4S9P3_TETNG	Q4G0S0_HUMAN	Q66IW3_XENLA	LRC4B_MOUSE	NYX HUMAN	Q2M1S4 HUMAN	LRC4B_HUMAN	Q4JIWO_HUMAN	NGL1_HUMAN	NGL1 MOUSE	Q505ES_MOUSE	Q7ZXI2_XENLA	Q6E4J7_PETMA	Q4SU68_TETNG	QSTOV4_HUMAN	QSVW18_HUMAN	SLIT1_HUMAN
7	7	н	8	8	Н	Н	Н	7	7	~	8	7	ч	н	7	7	7	7	7	7	7	7	Н	Н	0	Н	7	ч	Н	~	~	7	7	~	~	Н
441	478	445	412	457	420	445	420	310	324	411	458	652	652	653	597	602	762	778	935	411	692	466	709	481	481	713	640	640	640	640	1529	417	339	782	1461	1534
43.5	43.2	43.1	43.0	42.9	42.8	42.7	42.5	42.2	39.9	39.2	37.3	21.7	21.4	21.3	21.2	21.2	21.2	21.2	21.0	20.9	20.7	20.6	20.2	20.0	20.0	20.0	19.9	19.8	19.8	19.8	19.8	19.7	19.7	19.6	19.6	19.6
737	731.5	730	729.5	726.5	725	724	720	714.5	677	664	631.5	367	362	361.5	358.5	358.5	358.5	358.5	355.5	354	351.5	350	342.5	338.5	338.5	338.5	337.5	335.5	335.5	335.5	335	334	333.5	333	333	333
ø	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	56	27	28	53	30	31	32	33	34	35	36	37	38	39	40	41	42	43	4	4.5

### ALIGNMENTS

```
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Euarchontoglires; Glires; Rodentia; Sciurognathi;
Muroidea; Muridae; Murinae; Rattus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Jin W.-L., Jia W., Long M., Ju G.,
"Identification and preparation of polyclonal antibody against rat
                                                                                                                                                                                      Reticulon-4 receptor precursor (Nogo receptor) (NgR) (Nogo-66
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Nogo receptor.";
Submitted (MAR-2001) to the EMBL/GenBank/DDBJ databases.
                                                                                                          25-NOV-2002, integrated into UniProtKB/Swiss-Prot
                                                     473 AA.
                                                     PRT;
                                                                                                                                       sequence version 2.
entry version 41.
                                                                                                                                                                                                                                         Name=Rtn4r; Synonyms=Nogor;
Rattus norvegicus (Rat).
                                                                                                                                                                                                                                                                                                                                                                                                                                   NUCLEOTIDE SEQUENCE [MRNA].
                                                     STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                         STRAIN-Sprague-Dawley;
                                                                                                                                                                                                                                                                                                                                                                             NCBI_TaxID=10116;
                                                                                                                                    10-MAY-2005,
27-JUN-2006,
                                                  RTN4R_RAT
Q99M75;
                              RTN4R_RAT
RESULT 1
```

ttp://es/ScoreAccessWeb/GetItem.action?Appld=10553669&seq1d=09323b678059e7c2&ItemName=20... 11/27/2007

# CORE Search Results Details for Application 10553669 and Search Result 20071121\_092712\_us-10-55... Page 2 of 16

### Score Home Page Retrieve Application List SCORE System Overview SCORE FAQ Comments / Suggestions

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SCORE Search Results

This page gives you Search Results detail for the Application 10553669 and Search Result 20071121\_092712\_us-1

GenCore version 6.2.1 Copyright (c) 1993 - 2007 Biocceleration Ltd.

OM protein - protein search, using sw model

Run on:

November 21, 2007, 09:43:31 ; Search time 17 Seconds

(without alignments) ' 1938.665 Million cell updates/sec

US-10-553-669-1 Perfect score: ritle:

1 MKRASAGGSRILLAWVLWLQA......TDEEPLGLPKCCQPDAADKA 344 Sequence:

283416 segs, 96216763 residues Searched:

Gapop 10.0 , Gapext 0.5

**BLOSUM62** 

Scoring table:

283416 fotal number of hits satisfying chosen parameters:

Winimum DB seq length: 0 Waximum DB seq length: 2000000000

Post-processing: Minimum Match Of Maximum Match 100\* Listing first 45 summaries pirl:\* pir2:\* pir3:\* PIR\_80:\* Database :

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

pir4:\*

SUMMARIES Result

insulin-like growt slit protein 2 pre slit protein 1 pre insulin-like growt chondroadherin pre slit-1 protein hom insulin-like growt MEGF5 protein - ra insulin-like growt synleurin - human platelet membrane Description T13953 JC5239 B36665 A36665 JC7973 JC6128 A53860 A60164 JC1282 T42218 Match Length DB Score 336 321.5 342.5 309.5 è.

ttp://es/ScoreAccessWeb/Get1tem.action?/App1d=10553669&seq1d=09323b678059e7c3&ItemName=20... 11/27/2007

G protein-coupled glial cell membran orphan G protein-c lysine carboxypept oncofetal trophobl	leucine-rich alpha neuronal leucine-r decorin precursor secreted leucine-r	decorin precursor cell-surface molec connectin precurso decorin precursor		hypothetical prote hypothetical prote gene wheeler prote tlr protein - frui decorin precursor hypothetical prote		hypothetical prote lumican precursor garp precursor - h lumicon, secretory biglycan precursor platelet glycoprot
2 JG0193 2 A58532 2 JE0176 2 A34901 2 A53531	1 NBHUA2 2 JC7763 1 NBHUC8 2 T42626	2 S24317 2 A49121 2 A43318 2 S06280	2 147020 2 T28714 2 T28715 2 S46224	7.34555 2.723841 2.713852 2.713887 2.A55454 2.723836	2 S29145 2 I39068 2 T10504 2 T34319 2 T15864	2 T19938 2 A46743 2 S42799 2 S52284 2 S32559 1 NBHUIA
907 1091 907 536 420	312 707 359'	357 682 360	360 789 1355 1535	333 594 1389 1385 354 610	382 1112 562 1066	738 342 662 338 369
16.0 15.8 15.8 15.6	14.2 13.9 13.4 13.1	12.9 12.7 12.7	12.5	12.3 12.3 12.2 12.0 11.9	11.3	11.1 11.0 11.0 10.9 10.9
295 291 290.5 287.5 278.5	261 256.5 246.5 241	238.5 234.5 234.5 233.5	230.5 230 230 227.5	226.5 226.5 226 224 221.5 218.5	215.5 208 208 206.5 205.5	204 202 202 200 200 199.5
13 14 15 16	17 18 19	22 2 2 2 2 4 3 3 2 4 3 3 5 4 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	2 2 2 2 2 2 2 3 2 3 3 3 3 3 3 3 3 3 3 3	3 3 3 3 4 5 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	35 33 39 39	4 4 4 4 4 4 0 11 0 11 0 11 0

### ALIGNMENTS

```
C;Accession: T4218
R;Nakayama, M.; Nakajima, D.; Nagase, T.; Nomura, N.; Seki, N.; Ohara, O.
Schomics 51, 27-14, 1998
A;Title: Identification of high-molecular-weight proteins with multiple EGP-like motifs by motif-tra
A;Reference number: Z14126; MUID:9836089; PMID:9693030
slit-l protein homolog - rat
N;Alternate names: MEGF4 protein
C;Species: Rattus norvegicus (Norway rat)
```

A;Status: preliminary; translated from GB/EMBL/DDBJ

A;Molecule type: mRNA A;Residues: 1-1531 <NAK> A;Cross-references: UNIPROT:088279; UNIPARC:UPI000004F20B; EMBL;AB011530; NID:93449289; PIDN:BAA3246 A; Experimental source: strain Sprague-Dawley; brain

: Superfamily: fruit fly slit protein; EGF homology; leucine-rich alpha-2-glycoprotein repeat homolo

62; Mismatches 133; Indels 198; Length 1531; Pred. No. 2.3e-23; Score 367; DB 2; 19.9%; Matches 110; Conservative Local Similarity

10;

Gaps

4 ASAGGSRLLAW-VLWLQAWQV-AAPCPGACVCYNEPKVTTSCPQQGLQAVPVGIPAASQR 61

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ttp://es/ScoreAccessWeb/GetItem.action?AppId=10553669&seqId=09323b678059e7c3&ItemName=20... 11/27/2007

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**SCORE Search Results** 

This page gives you Search Results detail for the Application 10553669 and Search Result 20071121\_092712\_us-1

GenCore version 6.2.1 Copyright (c) 1993 - 2007 Biocceleration Ltd.

OM protein - protein search, using sw model

Run on:

(without alignments) 1938.665 Million cell updates/sec November 21, 2007, 09:43:31 ; Search time 17 Seconds

US-10-553-669-2

1838 1 MKRASSGGSRLPTWVLWLQA......TDEELLGLPKCCQPDAADKA 344 ritle: Perfect score: Sequence:

283416 segs, 96216763 residues Gapop 10.0 , Gapext 0.5 Searched:

**BLOSUM62** 

Scoring table:

283416 Fotal number of hits satisfying chosen parameters:

Winimum DB seq length: 0 Waximum DB seq length: 200000000 Post-processing: Minimum Match Of

Listing first 45 summaries Maximum Match 100%

pirl: pir2:\* pir3:\* PIR 80:\* Oatabase

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Description	slit-1 protein hom	synleurin - human	insulin-like growt	slit protein 2 pre	slit protein 1 pre	MEGPS protein - ra	insulin-like growt	orphan G protein-c	insulin-like growt	insulin-like growt	platelet membrane
ΩI	T42218	JC7973	A41915	B36665	A36665	T13953	JC5239	JE0176	JC6128	JC1282	A60164
台	~	~	7	~	~	7	~	7	7	~	7
Query Match Length DB	1531	622	605	1469	1480	1523	605	907	603	603	260
	20.1	17.8	17.4	17.3	17.3	17.3	17.1	16.0	15.9	15.9	15.4
Score	369	328	319.5	318	318	318	313.5	293.5	293	292	283
Result No.	-	8	m	4	S	9	7	80	6	10	11

ttp://cs/ScoreAccessWeb/GetItem.action?AppId=10553669&seqId=09323b678059e7c4&ItemName=20... 11/27/2007

chondroadherin pre G protein-coupled	glial cell membran lysine carboxypept	oncofetal trophobl	leucine-rich alpha	hypothetical prote	neuronal leucine-r	decorin precursor	cell-surface molec	connectin precurso	decorin precursor	hypothetical prote	decorin - rabbit	gene wheeler prote	tlr protein - frui	decorin precursor	decorin precursor	hypothetical prote		hypothetical prote	hypothetical prote	proline- arginine-	hypothetical prote	hypothetical prote	decorin precursor	disease resistance	peroxidasin - frui	secreted leucine-r	disease resistance	hypothetical prote		hypothetical prote	hypothetical prote
A53860 JG0193	A58532 A34901	A53531	NBHUA2	T23841	JC7763	NBHUC8	A49121	A43318	206280	T23836	147020	T13852	T13887	S24317	A55454	T25194	T34555	T28714	T28715	139068	T34319	T19938	S29145	T30553	S46224	T42626	T10504	T15864	205390	T23395	T19939
361 2 907 2	1091 2 536 2	420 2	312 1	594 2	707 2	359 1	682 2	682 2	360 2	610 2	360 2	1389 2	1385 2	357 2	354 2	653 2	333 2	789 2	1355 2	382 2	562 2	738 2	354 2	1016 2	1535 2	1025 2	1112 2	1066 2	375 2	961 2	680 2
15.2	15.1	13.6	13.2	12.8	12.7	12.5	12.5	12.5	12.4	12.4	12.1	12.0	11.9	11.8	11.7	11.6	11.6	11.6	11.6	11.4	11.3	11.1	11.1	11.1	11.1	11.0	11.0	10.9	10.7	10.7	10.6
279.5	277	250	243	235.5	234	230.5	229	229	227.5	227.5	221.5	220	218	217.5	214.5	213.5	213	213	213	209	207	204.5	203.5	203.5	203.5	203	202.5	200.5	196.5	196	195.5
12	14	16	17	18	19	20	21	22	23	24	25	56	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45

### **ALIGNMENTS**

```
C;Accession: T42218
R;Nakayama, M.; Nakajima, D.; Nagase, T.; Nomura, N.; Seki, N.; Ohara, O.
Romonica 51, 27-34, 1998
A;Title: Identification of high-molecular-weight proteins with multiple EGF-like motifs by motif-trans, R;Reference number: 214126, MUID:9836089; PMID:9693030
A;Accession: T42218
                                                                                                                            C;Date: 03-Dec-1999 #sequence_revision 03-Dec-1999 #text_change 09-Jul-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                  4;Status: preliminary; translated from GB/EMBL/DDBJ
                                      N;Alternate names: MEGF4 protein
C;Species: Rattus norvegicus (Norway rat)
slit-1 protein homolog - rat
```

A;Molecule type: mRNA A;Residues 1.1531 cNAK> A;Cross-references: UNIRROT:088279; UNIRARC:UPI000004F20B; EMBL;AB011530; NID:g3449289; PIDN:BAA3246 A;Experimental source: strain Sprague-Dawley; brain 2; Genetics: A,Gene: MEGF4 2.Superfamily: fruit fly slit protein; EGF homology; leucine-rich alpha-2-glycoprotein repeat homolo Score 369; DB 2; Pred. No. 9.5e-24; 20.1%;

 4 ASSGGSRLPTW-VLWLQAWRV-ATPCPGACVCYNEPKVTTSRPQQGLQAVPAGIPASSQR 61 62; Mismatches 150; Indels 194; Gaps Matches 117; Conservative ጽ

Local Similarity

11;

ttp://es/ScoreAccessWeb/GetItem.action?AppId=10553669&seqId=09323b678059e7c4&ItemName=20... 11/27/2007

# CORE Search Results Details for Application 10553669 and Search Result 20071121 092712 us-10-55... Page 2 of 16

orphan G protein-c platelet membrane

lysine carboxypep

JE0176 A60164 A34901 A53531 A58532

287 276.5

qlial cell membran leucine-rich alpha neuronal leucine-r secreted leucine-r cell-surface molec connectin precurso

decorin precursor decorin precursor

JC7763 NBHUC8 T42626

250.5

241 238.5

261

A49121 506280 147020

234.5 234.5 233.5 230.5

524317 A43318

NBHUA2

oncofetal trophob

### Score Home Page Retrieve Application List SCORE System Overview SCORE FAQ Comments / Suggestions

SCORE Search Results D

This page gives you Search Results detail for the Application 10553669 and Search Result 20071121\_092712\_us-1

GenCore version 6.2.1 Copyright (c) 1993 - 2007 Biocceleration Ltd.

OM protein - protein search, using sw model

Run on:

November 21, 2007, 09:43:31 ; Search time 14 Seconds

prote

tlr protein - frui

decorin precursor

peroxidasin

gene wheeler prote

hypothetical prote hypothetical prote

hypothetical nypothetical

T23841

**F28714** T28715 T34555 T13852

decorin precursor

decorin - rabbit

hypothetical prote

T23836

221.5 219.5 218 215.5

\$29145 T10504

AS5454

1385 354 1535

T13887 546224 139068

disease resistance

proline- arginine

decorin precursor

hypothetical prote

prote

nypothetical

T15864 T19938

205.5

199.5

A46743 **F34319** 

(without alignments) 1938.665 Million cell updates/sec

1 PCPGACVCYNEPKVTTSCPQ......QRLAGRDLKRLAANDLQGCA 285 US-10-553-669-3 ritle: Perfect score:

BLOSUM62 Scoring table: Sequence:

283416 segs, 96216763 residues Searched:

Gapop 10.0 , Gapext 0.5

otal number of hits satisfying chosen parameters:

Winimum DB seq length: 0 Maximum DB seq length: 200000000

Post-processing: Minimum Match Of Maximum Match 100% Listing first 45 su

pirl:• pir2:• pir3:• pir4:\* PIR\_80:\* Database

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Query Match Length DB	DB	αι	Description
-	342.5	22.6		~	A41915	insulin-like growt
7	330	21.8	•	8	T42218	slit-1 protein hom
m	329	21.7		~	T13953 .	MEGF5 protein - ra
•	328.5	21.7		ď	JC5239	insulin-like growt
ß	325	21.5	•	~	B36665	slit protein 2 pre
9	325	21.5	•	~	A36665	slit protein 1 pre
7	318.5	21.0	622	~	JC7973	synleurin - human
Φ	305	20.1		7	JC6128	insulin-like growt
a	304.5	20.1		~	A53860	chondroadherin pre
10	297	19.6		~	JC1282	insulin-like growt
::	295	19.5		~	JG0193	G protein-coupled

ttp://es/ScoreAccessWeb/GetItem.action?AppId=10553669&seqId=09323b678059e7c5&ItemName=20... 11/27/2007

ALIGNMENTS

garp precursor - h

umicon,

lumican precursor nypothetical prote platelet glycoprot

insulin-like growth factor-binding complex acid-labile chain precursor - human N.Alternate names: Acid-Labile Subunit (ALS)

Species: Homo sapiens (man)

Date: 31-Dec-1993 #sequence\_revision 31-Dec-1993 #text\_change 09-Jul-2004 Accession: A41915 Leong, S.R.; Baxter, R.C.; Camerato, T.; Dai, J.; Wood, W.I.

Mol. Endocrinol. 6, 870-876, 1992 A,Title: Structure and functional expression of the acid-labile subunit of the insulin-like growth 1 A,Reference number: A41915, MUID:92357025, PMID:1379671 A, Accession: A41915

A;Status: preliminary

A; Molecule type: mRNA; protein

A.Residues: 1-605 <LEO> A.Cross-references: UNIPROT:P35858; UNIPARC:UPIO00000088A; GB:M86826; NID:g184807; PIDN:AAA36047.1;

A,Experimental source: liver A,Note: sequence extracted from NCBI backbone (NCBIP:110171)

F;75-98/Domain: leucine-rich alpha-2-glycoprotein repeat homology <LRRl>

F:99-122/Domain: leucine-rich alpha-2-glycoprotein repeat homology <LRR2> 7.123-146/Domain: leucine-rich alpha-2-glycoprotein repeat homology <LRR3> F:147-170/Domain: leucine-rich alpha-2-glycoprotein repeat homology <LRR4> F:171-194/Domain: leucine-rich alpha-2-glycoprotein repeat homology <LRR5> F:171-194/Domain: leucine-rich alpha-2-glycoprotein repeat homology <LRR5> F:219-242/Domain: leucine-rich alpha-2-glycoprotein repeat homology <LRR5> F:219-242/Domain: leucine-rich alpha-2-glycoprotein repeat homology <LRR5> F:243-266/Domain: leucine-rich alpha-2-glycoprotein repeat homology <LRR5>

ttp://es/ScoreAccessWeb/GetItem.action?AppId=10553669&seqId=09323b678059e7c5&ItemName=20... 11/27/2007

# CORE Search Results Details for Application 10553669 and Search Result 20071121 092712 us-10-55... Page 2 of 16

### Score Home. Page Retrieve. Application List SCORE. System Overview SCORE FAQ Comments / Suggestions

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SCORE Search Results

This page gives you Search Results detail for the Application 10553669 and Search Result 20071121\_092712\_us-1

GenCore version 6.2.1 Copyright (c) 1993 - 2007 Biocceleration Ltd.

OM protein - protein search, using sw model

November 21, 2007, 09:43:31 ; Search time 16 Seconds ü

(without alignments) 1938.665 Million cell updates/sec

US-10-553-669-4 ritle: Perfect score:

1 PCPGACVCYNEPKVTTSCPQ......TDEEPLGLPKCCQPDAADKA 319 Sequence:

Gapop 10.0 , Gapext 0.5 **BLOSUM62** Scoring table:

283416 fotal number of hits satisfying chosen parameters:

283416 seqs, 96216763 residues

Searched:

Post-processing: Minimum Match 100 Maximum Match 1000 Listing first 45 sv Minimum DB seq length: 0 Maximum DB seq length: 200000000

PIR\_80:\* Database

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution. piri:\* pir2:\* pir3:\* pir4:\*

SUMMARIES

insulin-like growt platelet membrane insulin-like growt insulin-like growt slit-1 protein hom insulin-like growt slit protein 2 pre slit protein 1 pre synleurin - human chondroadherin pre MEGF5 protein - ra Description T13953 JC5239 B36665 A36665 JC7973 JC6128 Query Match Length DB Score 321.5 ģ

ttp://es/ScoreAccessWeb/GetItem.action?AppId=10553669&seqId=09323b678059e7c6&ItemName=20... 11/27/2007

G protein-coupled	Orphan G procein.c	oncofetal trophobl	glial cell membran	leucine-rich alpha	neuronal leucine-r	decorin precursor	secreted leucine-r	decorin precursor	cell-surface molec	connectin precurso	decorin precursor	decorin - rabbit		hypothetical prote	hypothetical prote		gene wheeler prote	tlr protein - frui	peroxidasin - frui	decorin precursor	hypothetical prote	decorin precursor	proline- arginine-	, hypothetical prote	disease resistance	hypothetical prote	hypothetical prote	lumican precursor	garp precursor - h	platelet glycoprot	lumicon, secretory	hypothetical prote
JG0193	JE0176	A53531	A58532	NBHUA2	JC7763	NBHUC8	T42626	S24317	A49121	A43318	206280	I47020	T28714	T28715	T34555	T23841	T13852	T13887	546224	A55454	T23836	S29145	139068	T34319	T10504	T15864	T19938	A46743	S42799	NBHUIA	S52284	T23395
8	7 (	1 0	7	н	7	-	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	~	7	7	н	7	7
907	706	420	1001	312	707	359	1025	357	682	682	360	360	789	1355	333	594	1389	1385	1535	354	610	354	382	295	1112	1066	738	342	662	626	338	961
27.2		7	6.1	15.3	9.	14.4	14.1	13.9	۲.	13.7	9.	'n	4.	4	m.	13.2	7	٥.	0.	6	ω.	9.	7	12.1	٥.	0.	٥.	11.8	11.8	11.7	11.6	s.
17	91	16	16	15	14	14	14	13	13	13	13	13	13	13	13	13	13	13	13	12	12	12	12	12	12	12	11	77	11	11	11	11
295	250	276.5	276	261	250.5	246.5	241	238.5	234.5	234.5	233.5	230.5	230	230	227	226.5	226	223	222.5	221.5	218.5	215.5	208	206.5	206	205.5	204	202	202	199.5	199	197.5
12	7 7	12	16	17	18	19	20	21	22	23	24	25	56	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	4	45
			٠																													

### AL IGNMENTS

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Mol. Endocrinol. 6, 870-876, 1992
A:Title: Structure and functional expression of the acid-labile subunit of the insulin-like growth 1
A:Reference number: A41915; MUID:92357025; PMID:1379671
insulin-like growth factor-binding complex acid-labile chain precursor - human
                                                                                           Species: Homo sapiens (man)
Date: 31-Dec-1993 #sequence_revision 31-Dec-1993 #text_change 09-Jul-2004
                                                                                                                                                                                                                                         Leong, S.R.; Baxter, R.C.; Camerato, T.; Dai, J.; Wood,
                                                  N;Alternate names: Acid-Labile Subunit (ALS)
                                                                                                                                                                                                Accession: A41915
                                                                                                                                                                                                                                                                                                                                                                                                                                              A, Accession: A41915
```

A.Residues: 1-665 <LEO> A.Cross-references: UNIPROT:P35858, UNIPARC:UPI000000088A, GB:M86826, NID:g184807, PIDN:AAA36047.1; protein A; Molecule type: mRNA; A,Status: preliminary

A.Note: sequence extracted from NCBI backbone (NCBIP:110171) F;75-98/Domain: leucine-rich alpha-2-glycoprotein repeat homology <LRR1> F,99-122/Domain: leucine-rich alpha-2-glycoprotein repeat homology A; Experimental source: live

F;123-146/Domain: leucine-rich alpha-2-glycoprotein repeat homology F;127-170/Domain: leucine-rich alpha-2-glycoprotein repeat homology F;171-134/Domain: leucine-rich alpha-2-glycoprotein repeat homology F;195-218/Domain: leucine-rich alpha-2-glycoprotein repeat homology F;195-242/Domain: leucine-rich alpha-2-glycoprotein repeat homology F;219-242/Domain: leucine-rich alpha-2-glycoprotein repeat homology F;219-266/Domain: leucine-rich alpha-2-glycoprotein repeat homology

ttp://es/ScoreAccessWeb/GetItem.action?AppId=10553669&seqId=09323b678059e7c6&ItemName=20... 11/27/2007

# CORE Search Results Details for Application 10553669 and Search Result 20071121\_092712\_us-10-55... Page 2 of 16

361 2 A53860

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### SCORE Search Results Do

Score Home Page Retrieve Application List SCORE System Overview SCORE FAQ Comments / Suggestions

This page gives you Search Results detail for the Application 10553669 and Search Result 20071121\_092712\_us-1

GenCore version 6.2.1 Copyright (c) 1993 - 2007 Biocceleration Ltd.

OM protein - protein search, using sw model

November 21, 2007, 09:43:31 ; Search time 14 Seconds Run on:

(without alignments)
1938.665 Million cell updates/sec

1511 1 CPGACVCYNEPKVTTSRPQQ......QRLAGRDLKRLATSDLEGCA 284 Perfect score: Seguence:

US-10-553-669-5

BLOSUM62 Gapop 10.0 , Gapext 0.5 Scoring table:

fotal number of hits satisfying chosen parameters:

283416 seqs, 96216763 residues

Searched:

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries Minimum DB seq length: 0 Waximum DB seq length: 200000000

PIR\_80:\*
1: pirl:\*
2: pir2:\*
3: pir3:\* Database:

pir4:

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

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# ·			Query Match Length DB ID	80	ΩI	Description
-	323.5	:	622	5	JC7973	synleurin - human
М	319.5	21.1		~	A41915	insulin-like growt
٣	318			~	B36665	slit protein 2 pre
4	318			7	A36665	slit protein 1 pre
s	317			~	T42218	slit-1 protein hom
9	313.5			~	JC5239	insulin-like growt
۲-	312			~	T13953	MEGPS protein - ra
Φ	288		603	~	JC6128	insulin-like growt
o	287			7	JE0176	orphan G protein-c
20	285	18.9		N	JC1282	insulin-like growt
11	282.5	18.7		~	A60164	platelet membrane

ttp://es/ScoreAccessWeb/Get1tem.action?App1d=10553669&seq1d=09323b678059e7c7&ItemName=20... 11/27/2007

7	y protein-coupled	glial cell membran	oncofetal trophobl	leucine-rich alpha	hypothetical prote	neuronal leucine-r	decorin precursor	cell-surface molec	connectin precurso	decorin precursor	hypothetical prote	decorin - rabbit	decorin precursor	decorin precursor	hypothetical prote	hypothetical prote	hypothetical prote	gene wheeler prote	tlr protein - frui	hypothetical prote	hypothetical prote	hypothetical prote	proline- arginine-	decorin precursor	disease resistance	secreted leucine-r	peroxidasin - frui	hypothetical prote	fibromodulin precu	hypothetical prote	hypothetical prote	platelet glycoprot
	34901	A58532	A53531	NBHUA2	T23841	JC7763	NBHUC8	A49121	A43318	506280	T23836	147020	S24317	A55454	T34555	T28714	T28715	T13852	T13887	T34319	T25194	T19938	139068	S29145	T10504	T42626	S46224	T15864	205390	T23395	T19939	NBHUIA
	536 2	1091 2	420 2	312 1	594 2	707 2	359 1	682 2	682 2	360 2	610 2	160 2	157 2	154 2	333 2	89 2	1355 2	1389 2	185 2	562 2	653 2	738 2	382 2	354 2	1112 2	1025 2	1535 2	1066 2	375 2	961 2	680 2	626 1
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	2,78	253.5	249.5	243	235	231.5	230.5	229	229	227.5	227	221.5	217.5	214.5	213	213	213	209.5	207.5	207	207	204.5	204	203.5	200.5	200	199.5	198.5	196.5	196	195.5	191.5
:	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45

### ALIGNMENTS

```
C;Species: Homo sapiens (man)
C;Date: 25-Aug-2003 #sequence_revision 25-Aug-2003 #text_change 15-Sep-2003
C;Date: 25-Aug-2003 #sequence_revision 25-Aug-2003 #text_change 15-Sep-2003
R;Aacession: Groy, Y; Li, L.; Shi, Y.
Biochem: Biophys. Res. Commun. 305, 981-988, 2003
Biochem: Biophys. Res. Commun. 305, 981-988, 2003
A;Title: Synleurin, a novel leucine-rich repeat protein that increases the intensity of pleiotropic A;Accession: JC7973; PMID:12767927
                                                                                                                                                                                                                                                                                                                                                                                       A;Molecule type: mRNA
A;Residues: 1-622 <WANN>
A;Cross-references: GB:AX280614
C;Comment: This protein that is a single span transmembrane leucine-rich repeat protein is involved
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A,Map position: 5q12.1
C,Keywords: cytokine; leucine-rich repeat; synleurin; transmembrane protein
synleurin - human
```

Š, 21 GLQAVPAGIPASSQRIFLHGNRISYVPAA------SFQSCRN 56 41; Mismatches 110; Indels 107; Gaps Length 622; Query Match 21.4%; Score 323.5; DB 2; Best Local Similarity 27.1%; Pred. No. 6.6e-21; Matches 96; Conservative 41; Mismatches 110;

ttp://es/ScoreAccessWeb/GetItem.action?AppId=10553669&seqId=09323b678059e7c7&ItemName=20.. 11/27/2007

# CORE Search Results Details for Application 10553669 and Search Result 20071121 092712 us-10-55... Page 2 of 16

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JG0193 A34901 A58532 A53531 NBHUA2

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decorin precursor hypothetical prote

S06280 T23836

147020 524317 A55454

decorin precursor

JC7763 NBHUC8

A49121 A43318 decorin - rabbit decorin precursor decorin precursor

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hypothetical hypothetical

T34555 T28714

12.6 12.6 12.6 12.6 12.5

T25194

221.5 217.5 214.5 213.5 227.5

T28715 T13852

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T34319

T13887

T19938 139068

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hypothetical prote hypothetical prote

### Score Home Page Retrieve Application List SCORE System Overview SCORE FAQ Comments / Suggestions

SCORE Search Results De

This page gives you Search Results detail for the Application 10553669 and Search Result 20071121\_092712\_us-1

GenCore version 6.2.1 Copyright (c) 1993 - 2007 Biocceleration Ltd.

OM protein - protein search, using sw model Run on:

(without alignments) 1938.665 Million cell updates/sec November 21, 2007, 09:43:31 ; Search time 16 Seconds

US-10-553-669-6

1 CPGACVCYNEPKVTTSRPQQ.....TDEELLGLPKCCQPDAADKA 318 ritle: Perfect score: Sequence:

Gapop 10.0 , Gapext 0.5 **BLOSUM62** Scoring table:

fotal number of hits satisfying chosen parameters:

283416 seqs, 96216763 residues

Searched:

Post-processing: Minimum Match Of Maximum Match 100% Listing first 45 summaries Winimum DB seq length: 0 Maximum DB seq length: 200000000

pir1:\* pir2:\* pir3:\* pir4:\* PIR\_80:\* Oatabase

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

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KO.	Score	<b>Ouery</b> Match	Query Match Length DB	DB	ID	Description
: 4	328	19.4	!	~	JC7973	synleurin - human
~	321	18.9		7	T42218	slit-1 protein hom
6	319.5	18.8	609	~	A41915	insulin-like growt
4	318			7	B36665	slit protein 2 pre
'n	318			7	A36665	slit protein 1 pre
9	315			~	T13953	MEGF5 protein - ra
۲	313.5			7	JC5239	insulin-like growt
8	292			7	JE0176	orphan G protein-c
6	288.5			7	JC1282	insulin-like growt
10	288	17.0		7	JC6128	insulin-like growt
11	283	16.7		~	A60164	platelet membrane

ttp://cs/ScoreAccessWeb/GetItem.action? Appld=10553669&seq1d=09323b678059e7c8&ItemName=20... 11/27/2007

	proline- arginine-	decorin precursor	disease resistance	peroxidasin - frui	secreted leucine-r	disease resistance	hypothetical prote	fibromodulin precu	hypothetical prote	hypothetical prote	
	139068	S29145	T30553	S46224	T42626	T10504	T15864	205390	T23395	T19939	
	7	~	7	7	7	7	~	7	~	N	
,	382	354	1016	1535 2	1025	1112	1066	375	961	680	
				12.0							
	204	203.5	203.5	203.5	203	202.5	200.5	196.5	196	195.5	
,	36	37	38	39	40	41	42	43	44	45	

### ALIGNMENTS

```
C.Species: Homo sapiens (man)
C.Date: 25-Aug-2003 #sequence_revision 25-Aug-2003 #text_change 15-Sep-2003
C.Date: 25-Aug-2003 #sequence_revision 25-Aug-2003 #text_change 15-Sep-2003
C.Accession: JCT973
R.Mang, W.; Vang, Y.; Li, L.; Shi, Y.
A;Tile: Synleurin, a novel leucine-rich repeat protein that increases the intensity of pleiotropic A;Reference number: JCT973; PMID:12767927
A;Accession: JCT973
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A.Residuee: 1-622 <WAN>
A.Cross-references: GB:AY280614
C.Comment: This protein that is a single span transmembrane leucine-rich repeat protein is involved
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A.Map position: 5q12.1
2.Keywords: cytokine; leucine-rich repeat; synleurin; transmembrane protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                    A, Molecule type: mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    C; Genetics
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21 GLQAVPAGIPASSQRIFLHGNRISYVPAA....-SFQSCRN 56 : :

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45; Mismatches 115; Indels 110; Gaps

98; Conservative

Matches

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Query Match Best Local Similarity

DB 2; Length 622; .

19.4%; Score 328; DB 2; 26.6%; Pred. No. 3.9e-21;

ttp://es/ScoreAccessWeb/Get1tem.action?Appld=10553669&seq1d=09323b678059e7c8&ItemName=20... 11/27/2007

\*tumor necrosis factor alpha inhibitor: AN, drug analysis
\*tumor necrosis factor alpha inhibitor: DV, drug development
\*tumor necrosis factor alpha inhibitor: DT, drug therapy
\*tumor necrosis factor alpha inhibitor: TO, drug toxicity
\*tumor necrosis factor alpha inhibitor: PO, oral drug administration

·tumor necrosis factor alpha inhibitor: PD, pharmacology unclassified drug

(amyloid beta protein) 109770-29-8; (calcium) 7440-70-2; (exendin 4) 141732-46, 200013-86-1; (exendin 4) 141732-76-5; 141758-74-9; (glucagon like peptide 1) 89750-14-1; (inflitation) 170277-31-3; (pifithrin alpha) 63208-82-2; (thalidomide) 50-35-1

### Full search history

-> d his nofile

(FILE 'HOME' ENTERED AT 10:36:57 ON 21 NOV 2007)

'HCAPLUS' ENTERED AT 10:37:25 ON 21 NOV 2007 E US20070065429 /PN FILE

1 SEA ABB=ON PLU=ON US20070065429 /PN

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786653-17-6/RN 786653-18-7/RN 786653-21-2/RN 786653-25-6/RN 783350-11-8/RN 783350-12-9/RN 783350-13-0/RN 783350-14-1/RN 783350-15-2/RN 783350-16-3/RN 783350-18-5/RN 783350-19-6/RN 783350-20-9/RN 783350-21-0/RN 783350-22-1/RN 783350-23-2/RN 783350-24-3/RN 790777-25-2/RN 790777-26-3/RN 790777-27-4/RN FILE 'REGISTRY' ENTERED AT 10:39:02 ON 21 NOV 783350-09-4/RN 783350-10-7/RN 786653-00-7/RN 790777-28-5/RN 790777-29-6/RN 790777-30-9/RN NO-DTA
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10/553,669	L90 7129 SEA ABB-ON PLU-ON L79 AND L89  L91 QUE ABB-ON PLU-ON ((MAMMAL? OR PRIMAT? OR RODENT? OR DOG? OR CAT? OR PIG? OR RAT? OR MOUSE? OR HUMAN? OR MONKEY?  OR PLACENT? OR MARSUP?) (3A) (BRAIN? OR CNS? OR (CENTRAL) (2A) (NER	L92 QUE ABB-ON PLU-ON (REDUC? OR ADMINIST? OR TREAT? OR ALLEV? THERE OR PALLIAT? OR PHARMAC? OR MEDICIN? OR MEDICAT? OR	L93 45 SEA ABB—ON PLU—ON (L71 OR L72 OR L73 OR L74) OR L77 OR (L80 OR L81 OR L82 OR L84) OR L86 OR L88	७।	1 SEA ARBEION FULS MULLY 1 SEA ARBEION FOR ARBITANT 1 SO	45 SEA ABB=ON PLU=ON	198 . 45 SEA ABB-ON PLU-ON L97 OR L17 OR L80	NO TOTAL NO	L100 23 SEA ABB=ON PLU-ON L98 AND L99 SAVE TEMP L100 HA669HCTX/A	E STRITTMATTER S?/AU	L101 144 SEA ABH-GON PLU-GON ("STKITUMATIEK S M"/AU OR "STKITUMATIEK STEPHEN M"/AU OR "STRITTMATIER STEPHEN M"/AU OR "STRITTMATIER STEPHEN STRITTMATIER STEPHEN STAD OR "STRITTMATIER STEPHEN S"/AU)	E LEE D?/AU	L102 228 SEA ABB=ON PLU=ON "LEE DANIEL"?/AU OR "LEE DANIEL H S"?/AU OR "LEE DANIEL"/AU	E LI W?/AU	1,103 4680 SEA ABBEON PLU-GN "LI WEIWEF"/AU OR "LI WEI WEI"/AU OR "LI MET MET"/AU OR "LI MET		5038 SEA ABB=ON PLU=ON	14 SEA ABB=ON PLU=ON	97 SEA ABB=ON PLU=ON	1108 78 SER ABBE ON FLIGE AND LIGHT AND LIGHT AND LIGHT AND LIGHT AND LIGHT AND LIGHT AND	O SEA REBENIE TO THE BLACK OF NOCOR OF NOCORS OF NOCORS OF NOCORS OF NOCORS OF NOCORS OF NOCORS	NGR? OR NGO? OR NGRI?)	L110 43 SEA ABB=ON PLU=ON L104 OR L109	SAVE TEMP L110 HA669HCIN/A		FILE 'MEDLINE, BIOSIS, EMBASE,	192138 SEA ABB=ON PLU=ON	LIIZ 68/82 SEA ABBEGON FULGON (AMILOLD: (4N) (FLANCE: OK FERILD: OK	CILT ONE FOLIATION ( ) THE STATE OF THE STAT	NO=ILIG NO=BBE SOL	10 SEA ABB=ON PLU=ON L113	17 SEA ABB=ON PLU=ON L113		862 SEA ABB=ON PLU=ON L113	. 62 SEA ABB=ON PLU=ON	34573 SEA ABB=ON PLU=ON	23 SEA ABB=ON PLU=ON	1122 7487 SEA ABBEON FLUENON (LIIS ONL LYZ	NO=DAY NO=BBA ABS 1.	S SEA ABBEON FLORES SEA SELECTION OF LIES	32 SEA ABB=ON PLU=ON L124	41 SEA ABB=ON PLU=ON L123	21.SEA ABB=ON PLU=ON L127	p.148	
10/553,669	4 SEA ABB=ON PLU=ON L19 4 SEA ABB=ON PLU=ON L20 4 SEA ABB=ON PLU=ON L21 4 SEA ABB=ON PLU=ON L22 1 SEA ABB=ON PLU=ON L22	ABB=ON PLU=ON ABB=ON PLU=ON	ABB=ON PLU=ON	ABB-ON PLU-ON (L29 OR L30 OR L31 OR L32 OR	4 SEA ABBEON PLUEON (L34 OR L35 OR L36 OR L37 OR L38)	OR 146 OR 147 OR 148 OR 149)	1 SEA ABB=ON PLU=ON (L50 OR L51 OR L52 OR L53 OR L54 OR L55)	135 OR 136 OR 137 OR 138 OR 139 OR 140 OR 141 OR 142 OR 143	L44 OR L45 OR L46 OR L47 OR L48 OR L49 OR L50 OR L51 OR L52 OR L53 OR L54 OR L55)	E ALZHEIMER	47914 SEA ABB-GNO PLUD-GNN (ALZHEIMER/BIOR ALZHEIMERS/BI) QUE ABB-GNO PLUD-GNN ((NOGO OR NOGORI OR NOGORI OR NOGRI) (SA) (AGON) OR ANTÄGORON? OR RECEBT? OR PEPTID? OR POLYPEPT?)		QUE ABB=ON PLU=ON ((NOGO OR NOGOR OR NOGORI OR NGR OR NGR) (SA) (ALZHEIMER? OR ALSHEIMER? OR PLAQUE? OR AMYLOID? OR	ALPHA? OR BETA?))	39 SEA ABB=ON PLU=ON L61 AND L62	SEA ABBEON PLUEON	SEA ABB-ON PLU-ON	SEA ABB=ON PLU=ON L60 AND L63		NGR17) (5A) (ALZHEIMER? OR ALSHEIMER? OR PLAQUE? OR AMYLOID? OR	ALFMA OF BLIAT!	ANTAGON? OR RECEPT? OR PEPTID		ABB=ON PLU=ON	SEA ABB=ON PLU=ON	SEA ABB ON PLUSON	SEA ABB-ON PLU-ON	PLU=ON		ARREON PLUEON	E AMYLOID/CT	11765 SEA ABB-ON PLU-ON AMYLOID/CT	1 SEA ABB=ON PLU=ON L60 AND L79	ABB-ON PLU-ON	SEA ABB-ON PLU-ON	SEA ABB=ON PLU=ON	ABB=ON PLU=ON	QUE ABB-ON PLU-ON	10 SEA ABBEAUN FULGION LES AND LES ONIT NEEDWAY (VERENTA) (128) (128) (128)	ABBRON PLUBON	4 SEA ABBEON PLUEON 184 AND 1.87	OUE ABB-ON PLU-ON	OR PROTE?)	D 147	

1446 1448 1448 11530 11531 1153 1153 1153 1153

L61 L62 L63

D L152 1-23 IBIB ED ABS HITIND D L152 24-36 IBIB AB HIT